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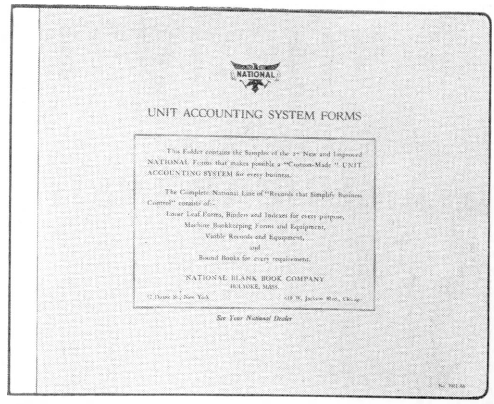

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A. P. RICHARDSON, *Editor*

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VOL. 52 DECEMBER, 1931 No. 6

EDITORIAL

The Antithesis of Goodwill

It is probably not an exaggeration to say that the chief purpose of practically every commercial, industrial or financial enterprise is to create goodwill, so that out of it may come the profits of operation. But comparatively little attention seems to be paid to the converse of the proposition, namely the prevention of bad will. It is far easier to establish bad will than good, and perhaps it is the very easiness of it which leads to its disregard. For example, in a time like the present when it seems to be necessary to make readjustments in almost every enterprise there is a most imminent peril of building up a bad will which will last for many years to come. We all talk about tightening up the belt, reducing expenses, preventing waste, effecting what are called economies in all directions; but while we are doing these apparently necessary things a good many people are going beyond the realm of necessity. They seem to have become terrified, and they rush from one extreme to the other. A few years ago it was the custom to expand, to increase expenses, to embark upon all sorts of wild adventures; and the man who did not do these things was called a fool. Now the very same people who were errant on the extravagant side of the road have gone astray on the other side and are afraid to spend a cent. That is one of the great causes of the continuance of the depression. It is an expression of the spirit of uncertainty accompanied by dread. So few of us are able to walk in the middle of the road. It is probably human to go to extremes. Certainly it is characteristic of several of the principal peoples of the world, notably those of

America and France, the two countries which at present chiefly control the destiny of the world. Today France is confident, America despondent. Tomorrow the positions may be reversed, but let us hope that both will be confident and all the other nations as well. Surely what has happened in the elections of Great Britain shows a stability and good sense which some people have not given credit to Great Britain for possessing.

We May Still Be Human

Now in America we are doing many strange things in our efforts to wander out of the morass into which we have gone. Great committees and commissions are busy making plans for the relief of the unemployed during this winter. Millions of dollars will be raised, and much of it will be fairly distributed to those who will indicate their need; but some of the companies whose heads are making the most frantic efforts to encourage assistance of the needy are themselves creating a great deal of supererogatory need. It is not obligatory upon a corporation to conserve all its assets. In a time like the present there should be a humanity as well as a spirit of economy. The absence of the humanities leaves a vacancy which will be filled by undesirable forms of socialism, by communism and general discontent. We think it would be well if all the corporations which find it necessary to effect economies, as they are called, would stop to consider for a while whether or not it would not pay in the long run—and this puts the matter on its lowest plane—to sacrifice all thought of profit or even to some extent the avoidance of loss, and instead to help the world, or rather the people of the world.

Base Ingratitude

Let us take a concrete case. A railroad company which has been operating for many years at substantial profit suddenly finds itself adversely affected by decline in freight and passenger traffic. Those who direct its affairs have only one thought, namely to reduce expenses so as to increase the margin of profit. Accordingly, wholesale reductions of staff are made, wages are reduced and the whole machinery is slowed down almost to a standstill. Now the reduction of wages is almost inevitable when the purchasing value of the dollar increases as it is increasing, but that does not mean that a general reduction of staff is altogether wise or even justifiable. This railroad which we have in mind discharged the other day a group of office employees of the higher ranks, some of whom had been in the employ of the company forty years or more. Their efficiency had not been reduced by age, but their fault was that they were receiving higher wages than would have to be paid to new men. Instead of giving them a chance of accepting a lower wage they were immediately discharged without notice. It is common knowledge that employees of railroads are not as a rule overpaid and few of them are able to lay aside very much against a rainy day. In the case before us we have men, who had spent all the fruitful years of their life in the service of the corporation, thrown out of work and left without pension or resources of any kind. Now let us see what will be the result. All these men have friends, some of them many friends. Probably the whole group of discharged men will have an influence upon hundreds of other men and women, and there will be spread abroad a sentiment of contempt for a corporation which when not actually in difficulties saw fit to sacrifice its faithful employees at such a time as this. The railroads of the country are particularly vulnerable. They are facing problems which are real and they can not afford to build up any more bad will than they have at present, yet here is an authentic instance of that suicidal policy which has always appeared from time to time in the history of American railroads. Apparently the public may still be damned.

There Is No Sound Justification

Of course the reply will be that railroads are not charitable organizations and they can not be expected to take care of all their employees. Of course they can not. When men have been employed only a little while and have not demonstrated any particular faithfulness, there can not be any sympathy with them if they are discharged. But surely when a man has given his life to a corporation and then is heartlessly discharged without cause it is absolutely unpardonable. In the present case it is quite easy to believe that many hundreds of tons of freight and many thousands of passengers will be diverted to competing railroads because of the disgust with which the public will regard the action which has been taken. The same story might be told of many industries. It is the total selfishness of many corporate organizations which is bringing about a dangerous tendency toward some sort of paternalistic protection. We may never sink so low as to resort to the dole, but we may come perilously near it. It has been said that corporations have no soul—and that is readily believed—but on the other hand there are corporations which display something very much like a soul. There are companies today which are "carrying" men for whom there is no absolute necessity, and they are doing this partly out of a sense of duty and partly also because they desire to stand well in the eyes of the public. To put the matter in another way, the avoidance of cutting down personnel is a form of advertising, and the profits of it will accrue in the future. Every one of us who has the slightest capacity for sympathy feels in him a spirit of friendliness toward a company which is doing its best to help in a time of crisis, and every one of us is alienated from every corporation which is pursuing an entirely selfish and heartless course. In the coming years the good will and the bad will now in the making will affect directly the success or failure of the companies of today. And there is another tremendously important effect of bad will that will be felt when prosperity shall have returned. In the case which we are considering, the result will be that when the potential employee can exercise selection, in other words, when there shall be more jobs than men to fill them, it is quite certain that there will be no applications from desirable men to those corporations which have been guilty of gross disregard of the elements of decent humanity. They will be compelled to fall back upon the men whom no one else will have.

Altruism Is Good Business

Anyone who reads these comments may say: "All this is pure altruistic theory. You can't expect a company to carry on at a loss when by reducing its number of employees it may operate at a profit." To this the reply is: "Oh, yes, we can expect just that. When the whole world is confronted by a grave problem, everyone, even a corporation, must assist in its solution." As we have said, there will be and should be reductions in the rates of wage when the value of the dollar is going up. We are not attempting to argue against that logical outcome of the present condition, but the point which distresses many people today, people who regard the matter purely in an academic way and are not personally affected, is that it is unforgivable to "lay off" a single man or woman who can be retained in employment. Corporations, partnerships and the individual men of business will live to regret any act which they may perpetrate today against the welfare of the rest of us.

Goaded By Spurs

An accountant, who frankly admits that he abhors law and regulation so far as they apply to the practice of a profession, has written suggesting that THE JOURNAL OF ACCOUNTANCY should publish editorial comment upon the fallacy of forbidding and the futility of all inhibition. His thesis apparently is founded upon a fear that the council of the American Institute of Accountants is about to enact an additional rule of conduct which will forbid any member of the organization to give a certificate of the future earnings or income of any business enterprise. He points out that in his belief there is no inherent harm in prediction. He contends that the only danger lies in the misuse of an accountant's prophecy. He then goes on to argue that nothing is ever accomplished by the law of *Do not.* It is difficult to have complete confidence in our correspondent's profession of faith, but he stoutly affirms his adherence to the doctrine of professional anarchy. Anarchy, as we all know, is a beautiful theory which postulates the universal righteousness of mankind. It is based upon the principle that if a man is placed upon his honor he will never do anything dishonorable. Philosophers from Socrates to our correspondent have been thinking about the perfect state, the ideal commonwealth, the model republic in which all men will be equal and all men will be good and no one will defraud. It is an entrancing image, but the hard cruel fact is that mankind has not yet reached perfection. One may spend a profitable half hour in attempting to picture to himself the condition of some great city such as New York were all law and regulation abolished. According to the anarchists the result would be a time of quietness and goodwill. The rattle of the gangster's machine gun would be succeeded by the peaceful calm of a universal sabbath. The craft of the locksmith would be useless. Battle, murder and sudden death would vanish away and we should walk in a kind of Beulah Land—if there were no law.

A Land of Make-believe

In accountancy, like all other vocations, the tearing down of all control would lead to a fraternal Utopia. Accountants would probably be induced only with great difficulty to undertake any accounting work, lest it might interfere with the professional activities of their confrères. There would probably be a great deal of time wasted in seeking to avoid anything which could be misinterpreted by another accountant. Clients would be hard put to it to get their work done. We should live in a kind of Nirvana. At least, we should do all these things if it were not for mankind itself—and that is the factor of the equation which our correspondent prefers to ignore. This is a pragmatic world and there is no way of making it anything else, except by the gradual process of education and betterment which has been going on ever since a man appeared above the life of the jungle. It is not harmful to speculate upon the possibilities of what may be when all men are imbued with a sincere will to do right, but in the meanwhile, before the coming of that desired day, it is the part of wisdom to lock the doors. It has frequently been said in various forms that laws are not written for the law-abiding. It is not necessary to tell a decent man that he must not steal nor lie nor murder nor injure in any way his neighbor. He does not wish to do so. His innate gentility teaches him what to do. In other words, conscience is the guide. But, on the other hand, there are many men and women who are not inspired by a knowledge of right and wrong, and for them laws are written and on their account laws are enforced. So it is in all the professions. The codes of ethics are due entirely to the fact that many men will not be ethical unless forced to be so. Probably it is safe to say that most members of any learned profession have no possible need whatever for a code of ethics or any control in the guidance of their professional relations, but there is the minority, alas, and so we have and must have rules of conduct so that those who do not know or do not wish to know may have impressed upon them the necessity of behaving in a professional way.

Laws and Administration

Our correspondent goes further and alleges that the attempt to enforce rules of conduct is doomed to failure. In these days there is a great deal of that kind of talk. Because some laws which have been written are distasteful to a great number of people and it has not been possible to enforce them adequately, there is a tendency to say that all law is useless. Now, as a matter of fact, the so-called prohibition laws of the United States are not enforced for two reasons. In the first place, it seems to be impossible to engage a corps of men to administer them without including in that body a great many unscrupulous members to whom administration means merely the opportunity to extort bribes. In the second place, and this is the more important, the liquor laws are not enforced because only a minority is strongly in favor of enforcement. There is a great mass of indifference, and there is a strong faction of the public which constantly defies the law. It is written in the history of legislation that in such circumstances there can be no comprehensive administration. Then we have, of course, the so-called speed law which every driver of a car breaks daily. This law is not enforced because nobody wants to enforce it. Whenever a sign appears to the effect that speed must not exceed twenty miles an hour that is an invitation to the breaking of law. Arguing from this point, those who feel as our correspondent feels may contend that every law encourages contravention by the mere fact of existence. This is true to a certain extent, but that truth is not dominant. It seems to be a reasonable assumption that any law which attracts the support of the majority is a good law and can be enforced. For example, if we had established anarchy we should have no law against stealing or murder. We have such laws and they are reasonably well enforced, because an overwhelming preponderance of opinion favors their enforcement. More and more as the world advances the reign of the majority increases. In accountancy, which is the subject of this present consideration, the vast majority of practitioners will be found in favor of the enforcement of rules which make for the protection of the public and the enhanced prestige of the profession.

The Distribution of Practice

In the course of an address delivered at the annual meeting of the American Institute of Accountants, Maurice E. Peloubet presented some interesting figures relative to the audit of the accounts of corporations whose securities are listed on the New York stock exchange. He said: "A recent check of corporation stocks or bonds listed on the New York stock exchange is interesting. It shows a total of 1,056 companies, of which 701 publish accounts certified by 102 public accounting firms or persons. The points of present interest are that two-thirds of the listed concerns are audited and the head offices in the United

States of 58 of the 102 auditors are in New York. These 58 do about 90% of the 701 audits." A further analysis of the distribution of work among the accounting firms produces the following figures (firms are indicated by letters): (a) 146 companies, (b) 71, (c) 71, (d) 56, (e) 49, (f) 48, (g) 27, (h) 24, (i) 15, (j) 12, (k) 11, (l) 10, (m) 10, (n) 10, (o) 8, (p) 7, (q) 6, (r) 6,

84 firms and persons having 1 to 4 audits......	114
Total certified........................	701
Not certified	259
No information	96
	1,056

Some figures recently compiled by J. M. B. Hoxsey, executive assistant to the stock list committee of the New York stock exchange, produced slightly different results, but apparently Mr. Hoxsey did not include listed bonds.

Too Much Concentration

The concentration of professional work in the hands of a comparatively small number of accounting firms is an indication of a condition not altogether healthy. There are hundreds of competent accountants scattered throughout the country who are well qualified to render the professional service required by corporations, and it seems a pity that there should be such strong inclination to restrict engagements to a small number of firms at the expense of the greater number. Of course, the same condition exists in almost every department of life. The trite old saying that nothing succeeds like success is most eloquently demonstrated in this. It is probably purely idealistic to hope for an even distribution of professional work throughout the profession, but something may be done and ultimately will be done to impress upon clients and potential clients the possibility of obtaining excellent professional assistance locally. The same sort of thing prevails in the medical profession. There are a few surgeons of great name to whom everyone having the means of approach desires to go in times of serious illness, but there are thousands of men probably equally competent and near at hand who are overshadowed by the importance of a great name. It is only fair to say that in many cases the gravitation of accounting engagements to a few offices is in no way attributable to effort on the part of firms engaged. There are, of course, some unworthy things done by firms which have fairly large practices, but for the most part the growth of practice is spontaneous. The heads of many of the large firms are much concerned by the unwillingness of clients to employ competent men wherever they may be found. Some of these leaders are sufficiently wise to know that the health of the profession will depend on the proper distribution of professional work and they are not eager to attract every possible client. Those who are really wise would prefer to see everyone succeed rather than temporarily to succeed overwhelmingly themselves.

To Certify or Not In the August, 1931, issue of THE JOURNAL OF ACCOUNTANCY appeared editorial comment on the subject of audit certificates, and the opinion was then expressed that it would be well to abandon altogether the words "certify" and "certification." Now comes Walter Mucklow, a member of the council of the American Institute of Accountants, to dispute the argument. He says:

"No quarrel is to be picked with your hope as to the washing away of the word 'certify,' but is it quite accurate to say 'Accountants should report, *not* certify'? I suggest to you that they can, with entire propriety, do both. Let us admit that many certificates are badly drawn and do not fit the case. Is that a good reason for abandoning certificates? Is it not like saying to a lady wearing an ill-fitting frock, 'Madam, you should wear nothing?' A remark which your modesty would not allow you to utter. May it not be said with truth that, usually, an accountant's work consists of three phases: (1) making an examination, (2) preparing a report thereof, (3) drawing a certificate indicating the extent of (1) and the result of (2)?

. . . . .

"I suggest that the entire English-speaking business world is accustomed to 'certificates' from their births to their deaths—e. g., birth certificates, weighers' certificates, warehouse certificates, and, if fortunate, C/D, and so on until finally the death certificate is reached and no further certificate is possible, except that of burial.

"Probably no documents command a wider international respect than do those of Lloyd's: the policy contains almost the same words as did the original drawn two centuries ago and every report of a Lloyd's agent or of a surveyor contains a certificate that the signer has done certain things and in his opinion the accompanying statements are correct.

"In these circumstances, would it be wise for accountants to announce that they would no longer certify?

"Again, on page 88 you beg us to 'leave ritual!' My very dear Sir, is not the utter abandonment of ritual one of the troubles of the day? Again, it is admitted that in many instances ritual had become burdensome and needed modification. As we are now using the word, it means 'any ceremonial form or custom of procedure' and while it is probably true that sentiment is usually more or less closely connected with the observance of any ritual and an individual's sentiment regarding it may be affected by his temperament, few, if any, would abolish all ritual. Bowing to a woman, rising at the entrance of a judge in court, saluting the flag, even shaking hands, are all 'ritual'—but does that afford a reason for abandoning them?

"The public is accustomed to, and expects, some ritual from members of a profession, e. g., a lawyer's opinion or a physician's prescription is couched in language inherited from the past, but modified and, sometimes, reduced to reasonable terms. Is it not well, then for us accountants to continue to respect a practice and a verbiage which might be improved, but which is as old, at least, as our profession and has received legal, professional and public recognition?

"When all these questions are answered, it seems to me wiser to retain and improve the certificate rather than to abandon it. Are you sure that in this I err?"

To this the reply would be that ritual and tradition serve a purpose when they do not conflict with reason and common-sense. The instances which Mr. Mucklow cites are not on all fours with the use of the word "certify" by accountants. The point that we have in mind is that one can not certify an opinion. The fact that it is an opinion precludes the possibility of certification. We should like to see the adoption of reasonable terminology rather than the adherence to a misleading convention—but one always enjoys reading what Mr. Mucklow has to say.

AMERICAN INSTITUTE OF ACCOUNTANTS EXAMINATIONS

[Following is the text of the examinations in auditing, law and accounting presented by the board of examiners of the American Institute of Accountants November 12 and 13, 1931.]

BOARD OF EXAMINERS

Examination in Auditing

NOVEMBER 12, 1931, 9 A. M. TO 12:30 P. M.

Answer all the following questions:

No. 1. (10 points):

Define turnover in merchandising or manufacturing, and state how it is to be ascertained.

No. 2. (10 points):

In a qualified certificate appears the following sentence:

> "Depreciation of capital assets has been charged on the basis of the cost of such assets and not on appreciated values."

In the accompanying balance-sheet surplus is stated as a single item.

Your client, a prospective investor in the stock of the corporation in the case, asks you to explain what the sentence means, and to advise him as to what further information he should obtain.

What explanation and what advice would you give him?

No. 3. (10 points):

You are instructed to make the first audit of the accounts of an estate covering a period of two years from date of decedent's death. His assets comprised bonds, stocks, mortgage notes, notes and accounts receivable and cash. At the same date there were direct liabilities consisting of notes and accounts payable and contingent liabilities in respect to notes payable endorsed by decedent, who, however, was not engaged in business.

You find that appropriate investment records and ledger accounts have not been kept, that journal entries without explanations have been made in the cashbook, and that the final cash balance in the cashbook is not in agreement with the balance shown by the bank statement.

State what audit procedure you would follow in verifying the gross and net estate, and the gross and net income of the estate for the two-year period under review.

No. 4. (10 points):

To what extent is a public accountant liable to a creditor of his client who relies upon his certified statement and suffers a loss because of a condition existing in the affairs of the debtor-client which was neither disclosed nor indicated in the accountant's report? State your reasons and discuss.

No. 5. (10 points):

You are employed by the estate of A, deceased, to audit the books and render a statement of the affairs of the firm of A & B, of which A was a member. In the course of your audit you find an item debited to insurance expense designated merely "life-insurance premium." On inquiry you learn from the bookkeeper that it was paid on a joint-life policy of the two partners. You find no record of the receipt of the face of the policy.

What does this suggest to you, and what steps will you take in the matter?

No. 6. (10 points):

Define the following terms:

(a) Cost less accrued depreciation.

(b) Cost of reproduction new less accrued depreciation.

State the conditions under which each method may be used in valuing capital assets.

No. 7. (10 points):

You are auditing an importer's accounts in behalf of a bank which has established commercial letters of credit for large amounts in favor of the importer. The latter signs "trust receipts" when he receives the goods he imports.

How far would you pay attention to the practice of the importer in paying the bank drafts drawn under these credits, and why?

No. 8. (10 points):

In making an audit of a stock-broker's accounts you find the following accounts of customers:

(a) Customer Abbott:

Ledger debit balance, $9,500.

Market value of "long" securities held by broker to protect the account, $6,000.

Above account is guaranteed by Customer Brown.

(b) Customers Carter & Davis, joint account:

Ledger debit balance, $75,000.

Market value "long" securities held, $95,000.

(c) Customer Elliott:

Ledger debit balance, $25,000.

Market value "long" securities held, $6,875.

Above account is guaranteed by Customer Flynn, whose debit balance is $88,000, and

Market value of "long" securities held is $191,000.

Elliott also guarantees the account of Gaunt, whose debit balance is $100,000, and

Market value of "long" securities is $60,000.

(d) Customer (1) Harris, and

(2) Harris, special:

(1) Harris' account shows debit balance, $12,500 and "long" securities, $15,000.

(2) Harris', special, account shows debit balance, $2,100. No securities held.

What procedure should be followed in confirming these accounts? Give reason for each case.

No. 9. (10 points):

When accounts receivable have been sold or hypothecated, how should they appear on the books and/or the balance-sheet which you are certifying without qualification?

No. 10. (10 points):

Criticize the following description of the verification of income in an audit report:

> "Cash received from the rental of boats by the hour or day has been verified from the daily appointment schedules kept by the dock tender (and not by the bookkeeper or cashier). All other receipts for monthly rentals, berth privileges, etc., are received in the form of cheques by mail. As daily receipts recorded agreed with deposits as shown by bank statements, we accept as correct the original entries for these revenues as found in the journal."

Examination in Accounting Theory and Practice

PART I

NOVEMBER 12, 1931, 1:30 P. M. TO 6:30 P. M.

The candidate must answer the first three questions and one other question:

No. 1 (30 points):

The trial balance (condensed) of Company A, as at December 31, 1930, was as follows:

	DR.	CR.
Cash	$ 2,438	
Accounts receivable	37,097	
Inventories—January 1, 1930:		
Raw material	7,492	
Jobbing goods	2,564	
Finished goods	10,473	
Machinery and equipment	14,622	
Prepaid insurance	1,300	
Purchases:		
Raw material	88,838	
Jobbing goods	44,045	
Sales:		
Manufactured goods—net		$163,721
Jobbing goods		54,601
Sundry accounts, apart from those detailed, applicable to cost of manufacturing and cost of sales	43,232	
Sundry expense accounts, applicable to profit and loss	51,312	
Notes and accounts payable		24,215
Reserves:		
For depreciation		12,021
For doubtful accounts		3,500
To reduce "Company B's" account to inventory cost value—January 1, 1930		144
Capital stock		18,500
Surplus		26,711
	$303,413	$303,413

Included in the accounts receivable of Company A is an account with "Company B," which is in reality a title only, used by A in selling merchandise on consignment to certain small dealers.

An analysis of this account, as it appears in the accounts-receivable ledger of Company A, is as follows:

	DR.	CR.
Balance—January 1, 1930	$ 3,600	
Shipments during 1930	632	
Selling expenses	58	
Cash collections during 1930		$ 2,344
Credit memos. issued in 1930 for goods returned		2,560
	$ 4,290	$4,904
		4,290
		$ 614

All cash collected from the customers of "B" is credited to this company's account on the books of A. This procedure has been in vogue for several years.

A list of balances of customers' consignment accounts of "B" totals $1,218 (which is accepted as correct), representing the prices at which the garments are sold to the public by the customers of "B." These customers remit only for garments actually sold and deduct 20 per cent. for their profit. A garment billed to "B" by Company A at the latter's regular selling price of $2 is then sold to the public by the customers of "B" for $2.90. The same proportion holds throughout. Shipments, inventories and sales consist of 75 per cent. of manufactured goods and 25 per cent. of jobbing goods.

On the articles handled by "B," Company A earns a gross profit of 35 per cent. on its selling price on manufactured goods and 25 per cent. on jobbing goods.

A physical inventory of goods on hand at the plant of Company A, at the close of business, December 31, 1930, was as follows:

Raw material	$6,780
Jobbing goods	4,463
Finished goods	7,246

From the foregoing trial balance and following data, prepare

(1) Journal entries necessary to adjust the account of "Company B;"

(2) Statement of cost of goods manufactured and cost of sales;

(3) Statement of profit and loss for the year ended December 31, 1930;

(4) Balance-sheet as at the close of business, December 31, 1930.

No. 2 (25 points):

Companies M and P are engaged in the exploitation, development and production of minerals. They decide to consolidate and form a Company K with a capital stock of 100,000 shares of no par value.

Under certain rights, acquired for nominal considerations, the holdings of Companies M and P have proved to be very valuable, principally because of discoveries of extensive underground deposits, the cost of which was considerably less than the present intrinsic values.

A disinterested appraisal has been made, and, based upon this appraisal and other assets apart from those appraised, the capital stock of K is to be issued to the stockholders of the subsidiary companies in the following proportions: for each share of M, two shares of K and for each share of P, four shares of K.

The appraisal shows the value of the properties of M to be $2,600,000 and those of P, $4,400,000.

All the stock is exchanged, with the exception of 100 shares of M. Later, 20,000 shares of K stock are sold for cash at $100 a share.

The accounts of M and P, as at the date of consolidation, were as follows:

	M	P
Cash	$ 200,000	$ 100,000
Property	1,600,000	1,800,000
Sundry other assets	500,000	100,000
	$2,300,000	$2,000,000
Sundry liabilities	$ 300,000	$ 600,000
Reserves for depletion and depreciation	800,000	600,000
Capital stock	1,500,000	1,000,000
Surplus (deficit)	300,000	200,000
	$2,300,000	$2,000,000

From the foregoing information

(a) Prepare journal entries to record transactions on books of K.

(b) Prepare a consolidated balance-sheet (in detail) explaining eliminations and adjustments.

(c) Explain basis on which minority interests are computed.

(d) How do you show capital accounts on the consolidated balance-sheet and why?

(e) How do you show property accounts on the consolidated balance-sheet and why?

(f) In preparing a consolidated balance-sheet and income statement as of a subsequent date, what adjustment, if any, would you make with regard to reserves for depletion of mineral deposits?

No. 3 (35 points):

Explanatory Notes

A logging company buys timberland (standing timber), cuts it down, saws it into logs and sells the logs.

The timber is first "cruised" by an expert, who reports upon the approximate amount and condition of each kind of timber on each section.

The land may be sold for a lump sum, at so much per acre or so much per thousand feet logged.

Where the land is close to a river, the skidroad process is employed; if too far away from a river, railroads are built. Frequently, the combination process is used.

When a section "goes under the axe," a camp is built, a road cleared and skidroad or railroad, or both, constructed. The cost is spread over the section cleared, as such equipment is worthless when this particular part is exhausted.

The processes employed are felling, bucking (sawing into logs), branding (a different mark being used for each section), logging and hauling—over skidroad, by railroad to landing on river bank, or direct to the mill. If the logs are dumped into a river, a boom, owned generally by an outsider, is necessary for sorting.

The logs, rafted or railroaded to the mill, are then graded and measured by both owner and buyer. As soon as the content of either raft or car is determined, the mill sends the owner (logger) a credit memorandum for it.

Problem

From the following trial balance and explanatory data, prepare

(a) Balance-sheet, as of December 31, 1930.

(b) Statement of operating cost for the year ended December 31, 1930.

(c) Statement of profit and loss for the same period.

Samoset Logging Company—Camp No. 1
Trial balance—December 31, 1930

	Dr.	Cr.
Cash in bank	$422,500	
Petty cash	1,750	
Accounts receivable	165,450	
Inventories:		
Cook-house	250	
Wangan*	150	
Standing timber (stumpage)	157,800	
Clearing cost	2,400	
Machinery and equipment	22,400	
Tools	1,250	
Cable	8,200	
Skidroads	29,000	
Office fixtures	1,500	
Notes payable		$ 50,000
Accounts payable		18,750
Payrolls accrued		37,100
Bonds—6 per cent		100,000
Capital stock		500,000

*Wangan—A flatboat used by Maine lumbermen for transporting their tools and provisions.

	Dr.	Cr.
Labor	$ 59,400	
Rigging maintenance	4,850	
Sundry operating expenses	900	
Cook-house purchases	12,350	
Cook-house sales		$ 15,250
Wangan purchases	1,210	
Wangan sales		1,320
Log sales		185,200
Salaries—administrative	10,000	
Office expenses	2,550	
Sundry expenses—general	710	
Bond interest	3,000	
	$907,620	$907,620

A survey of the situation, and an analysis of the records, produced the following information:

(1) There was no inventory of logs on hand, January 1, 1930, either in wood or in water.

(2) The cruiser's estimate of the tract contents was 60,000,000 feet.

(3) During the year, 26,040,000 feet were logged and 25,470,000 feet were rigged (placed in heaps or piles).

(4) Inventories, December 31, 1930, were:

Cook-house	$ 300
Wangan	160
Logs in water	2,320,000 feet

(5) Logs sold, 23,150,000 feet.

(6) Labor account was analyzed as follows:

Felling and bucking	$ 17,100
Rigging	36,550
Cook-house	3,540
Wangan	2,210
	$ 59,400

(7) Bond interest is payable semi-annually, July 1st and January 1st, and the dividend declared is 3 per cent.

The brand used in this instance was S L—1.

Fixed assets are to be written off in proportion to footage handled. Equipment depreciation is to be considered as a general expense. Tools are to be written off to felling and bucking, and cable wear-and-tear to rigging.

No. 4 (10 points):

A certain company has an agreement with its president to pay him a bonus of 10 per cent. of that portion of the net profit, after deduction for federal income tax, which is in excess of 6 per cent.

of the invested capital. Invested capital amounts to $300,000.

The profit, before deduction for bonus and tax, was $50,000 and the bonus, to be paid, is a deductible item in computing the tax.

What is the company's net income—i. e., less bonus and tax—and what the true rate of return on investment?

No. 5 (10 points):

A corporation has outstanding $14,000,000 in 6 per cent. bonds, due in 5 years. Interest is payable annually. The corporation desires to retire these bonds by a new 4½ per cent. issue, also due in 5 years.

The brokers suggest an issue of a stated larger amount to be issued mostly to the old bondholders, the balance to be the brokers' commission. No cash is to be received or paid.

This, apparently, should result in a considerable saving in interest, but you point out to the corporation that the cost will, eventually, be about the same.

What amount of bonds did the brokers suggest?

Given: $(1.04\dot{5})^5 = 1.246182$

Examination in Commercial Law

NOVEMBER 13, 1931, 9 A. M. TO 12:30 P. M.

An answer which does not state reasons will receive no credit. Whenever practicable, give answer first and then state reasons.

GROUP I

Answer all questions in this group.

No. 1 (10 points):

John Mason at the request of Walter Burroughs lent $150 to Burroughs, stating at the time that he, Mason, owed that amount to Charles Evans to whom he was obligated to pay it ten days thereafter. Burroughs, in consideration of the loan and at the time of receiving the $150, promised Mason that he, Burroughs, would pay $150 to Evans ten days thereafter. Evans knew nothing of this loan and promise until he tried unsuccessfully to collect from Mason. After Burroughs' failure to pay, can Evans recover in an action brought by him against Burroughs?

No. 2 (10 points):

Prentice made a valid contract with Adams whereunder Adams was to sell Prentice's goods on commission during the period from

January 1, 1931, to June 30, 1931. Adams made satisfactory sales up to May 15, 1931, and was then about to close an unusually large order when Prentice suddenly and without notice revoked Adams' authority to sell. Can Adams continue to sell Prentice's goods during the unexpired term of his contract?

No. 3 (10 points):

Carlin borrowed $10,000 from White for one year, giving as security a mortgage upon real estate.

(a) Six months later, Carlin died. At the maturity of the loan, what rights has White and against whom can he enforce them?

(b) If White instead of Carlin had died six months after the loan was made, to which of the following persons should Carlin make payment at maturity—White's legatees, heirs, testamentary trustee, administrator, next of kin, executor, devisees?

No. 4 (10 points):

Sanborn in June, 1928, while entirely solvent, executed and gave to his wife as a gift a formal bill of sale of his interest in the Mann Drug Corporation, in which he owned 110 shares of stock, but he retained the stock certificate, the stock was not transferred on the books of the corporation, the corporation was not notified of the bill of sale, and Sanborn continued to vote on the stock and receive dividends until April, 1931. At that time he was hopelessly insolvent and knew it, but without receiving any consideration he indorsed the certificate for these 110 shares to his wife, who had the transfer recorded on the corporation's books. Was this transfer of stock fraudulent as against Sanborn's creditors?

No. 5 (10 points):

Atwood and Chapin were partners and their business was insolvent. Atwood fraudulently represented to Morton that the firm's business was solvent and thereby induced Morton to become a partner and to make a capital investment of $10,000. As soon as Morton discovered the fraud, he personally obtained possession of most of the firm's assets and then notified his partners that he had withdrawn from the firm. Thereafter a creditor of the firm whose claim had arisen prior to Morton's becoming a partner, sued all three partners.

(a) What is the extent of Morton's liability, if any, to the creditor who was suing?

(b) What rights has Morton with respect to the fraud perpetrated on him?

GROUP II

Answer any five questions in this group. No credit will be given for additional answers, and if any are submitted only the first five answers will be considered.

No. 6 (10 points):

In what ways or by what means can the existence of a corporation come to an end?

No. 7 (10 points):

A policy of fire insurance issued to a partnership in its firm name makes no mention of changes in the personnel of the firm.

(a) Does the subsequent withdrawal of a partner affect the validity of the policy?

(b) Does the subsequent admission of a new partner affect the validity of the policy?

No. 8 (10 points):

(a) What is a conditional sale and how does it differ from a lease with an option to purchase?

(b) How in general can a conditional vendor protect his rights?

No. 9 (10 points):

Tompkins makes a negotiable promissory note payable to the order of the First National Bank and before delivery Chase writes his name on the back of it. What kind of endorser, if any, is Chase and what is his liability, if any, to the payee and to subsequent endorsees?

No. 10 (10 points):

(a) What is meant by an act of bankruptcy?

(b) Name the various acts of bankruptcy.

(c) What is a referee in bankruptcy, how does he obtain his position as referee, and what in general are his duties?

(d) What is a trustee in bankruptcy, how does he obtain his position as trustee, and what in general are his duties?

(e) What debts, if any, are not affected by a discharge in bankruptcy?

No. 11 (10 points):

A testamentary trustee duly made an authorized purchase of 400 shares of capital stock (of the par value of $100 each) at 120.

Subsequently he received 400 rights entitling him to subscribe to 100 additional shares at 100. Entirely regardless of taxable income, how should the trustee render account, distinguishing between principal and income of the trust, in each of the following cases:

(a) The trustee exercised his rights and later sold 40 shares at 130.

(b) The trustee did not exercise his rights but sold all the rights at $4.50 each.

No. 12 (10 points):

A corporation in 1925 constructed a factory building for its own use at a cost of $200,000. In 1929 it was insured for $250,000, and upon a total loss by fire during that year the entire amount of the insurance was received from the insurance company. Two hundred thousand dollars of this insurance money was immediately invested in the construction of a new factory which was sold in 1931 for $175,000. In what years and in what amounts would any taxable gain or deductible loss be recognized under the revenue act of 1928? (In your computations, disregard depreciation.)

Examination in Accounting Theory and Practice

PART II

NOVEMBER 13, 1931, 1:30 P. M. to 6:30 P. M.

The candidate must answer all the following questions:

No. 1 (40 points):

You are engaged to examine the record of capital stock, sold and issued, of the Natural Gas Company, from date of incorporation to March 31, 1931, and to make a detailed audit of the books of account during the period of production—January 1 to March 31, 1931.

The company was incorporated January 2, 1928, with an authorized capital of 500,000 shares of the par value of $1.00 each.

Your perusal of the minute book discloses that, pursuant to the provisions of the statutes of the state in which the company was incorporated, the entire capital stock of the company had been issued to P. Smith, in payment for gas leases, oil leases and contracts obtained from landowners at a fixed annual rental, until production of gas, when the rental would be converted to a royalty of 12½ per cent. of the gross value of the gas sold.

It was further disclosed that, under a pre-incorporation agreement, the promoters had sold and collected the proceeds of 205,000 shares of stock at 20 cents a share, which they accounted for as follows:

Proceeds:		
From pre-incorporation subscriptions, 205,000 shares at 20 cents a share		$41,000
Disposition:		
Gas wells—producing	$22,000	
Gas wells—abandoned	11,000	
Leases expired	451	
Leases unexpired	644	
Supervision	1,581	
Cash in bank	5,324	
		$41,000

You notice that certain items only are entered on the books of the company and credited, in total, to leases and contracts, viz.:

Gas wells—producing	$22,000
Leases unexpired	644
Cash (by cheque)	5,324
	$27,968

This record, together with a cheque payable to the company for the amount of the balance in bank and a legal transfer of all rights, titles and interest secured through these funds, was accepted and approved by the board of directors, which ordered that the record and transfers be given proper entry on the books of the company.

In order to raise funds for development of the gas structure, on which the company now holds the leases, Smith offered to donate to the treasury of the company 100,000 shares of stock for resale. The offer was accepted, approved and ratified by the board of directors, which fixed the resale price at $1.00 a share. A further offer of Smith to transfer 200,000 shares from his personal holdings for issuance to pre-incorporation subscribers was also accepted and approved, it being understood that any additional stock obligations to pre-incorporation subscribers would be supplied from the treasury of the company.

The treasurer (a man of means) deposited all receipts from the sale of stock in his personal bank account, relying upon the company's bookkeeper for the proper record of transactions. In checking this record you find the treasury-stock account credited with a remittance to cover 5,000 shares of stock donated by Smith, from his personal holdings, to the treasury of the company for transfer to A. Jones, in payment for pre-incorporation assistance to him, and another remittance of 100 shares, issued to replace a lost certificate. You note, also, that the bookkeeper had failed to obtain remittance for 1,250 shares that had been sold and issued. It was further disclosed that the treasurer had, personally, purchased 1,000 shares from a dissatisfied holder of capital stock, the certificate for which was found surrendered and attached to its relative stub without further transfer. Calling attention of the officers to these irregularities, you are requested to make the necessary corrections.

A trial balance, taken from the books, March 31, 1931, was as follows:

Abstracts of title	$ 670	
Accounts payable		$ 26,439
Accounts receivable	1,967	
Automobile	400	
Auto, expense	194	
Camp buildings	720	
Capital stock authorized		500,000
Cash in bank	182	
Casing, pipe, etc., in stores	10,624	
Development costs	112,364	
Equipment and pipe in place	60,000	
Incorporation costs	674	
Interest paid	718	
Land	4,600	
Land contracts		2,700
Leases and contracts	472,032	
Lease rentals	431	
Notes payable		33,947
Revenue from gas wells		6,114
Royalties paid (12½%)	764	
Salary of manager	900	
Sundry expenses	454	
Surplus donated		100,000
Taxes paid (property)	37	
Traveling	605	
Treasury stock	864	
	$669,200	$669,200

The company has decided to capitalize all development costs and to compute depletion on the basis of 27½ per cent. of gross income and depreciation on the productive life of ten years, without salvage value, in the case of camp buildings and equipment and four years on that of the automobile.

Make the necessary adjustments to bring the accounts in accord with the facts presented. Prepare profit-and-loss account for the three months' period—January 1 to March 31, 1931, and balance-sheet as of March 31, 1931.

Is the rate of depletion determined fully deductible for income-tax purposes?

No. 2 (12 points):

Abel, Budd, Catt and Dunn were partners in a stock-exchange brokerage house. During the year 1929, through speculation, the capital of the firm was reduced to such an extent that it became necessary to seek financial aid. They succeeded in introducing a capitalist, by name Ezee, to become a partner and to invest, as such, $500,000 in cash.

By the terms of the new partnership agreement, interest was to be allowed on capital at the rate of 6 per cent. per annum, and the average sales value of the seats on the exchanges held by the partners, plus cash, was to determine the values of their interests for capital purposes.

It was expressly stipulated that interest on the capital of the four partners—Abel, Budd, Catt and Dunn—should not be credited to them unless earned, but that the interest on Ezee's cash capital of $500,000 should be paid to him in any circumstances.

Profits were to be divided on the following bases:

Abel	30 per cent.
Budd	25 " "
Catt	15 " "
Dunn	10 " "
Ezee	20 " "

The capital accounts as at December 31, 1930, were as follows:

	Average sales value of exchange seats	Cash
Abel	$500,000	$120,000
Budd	300,000	100,000
Catt	180,000	30,000
Dunn	80,000	45,000
Ezee		500,000

The firm sustained a loss of $240,000, during the year 1930, before any distribution of interest on capital had been made.

How should this loss be apportioned?

Submit working papers showing how you reach your conclusions.

No. 3 (38 points):

Following are the condensed balance-sheets of companies A, B, C and D, as at the close of business, December 31, 1930:

Assets	A	B	C	D
Cash	$ 10,000	$ 20,000	$ 4,500	$ 20,000
Accounts receivable	90,000	180,000	145,000	280,000
" " from B	40,000			
" " " C		50,000		
" " " D			75,000	
Inventories:				
Raw material	75,000	100,000	90,000	100,000
Finished goods	60,000	70,000	80,000	90,000
Investments:				
Capital stock of A				50,000
" " " B	50,000			50,000
" " " C		100,000		50,000
" " " D	10,000			
Plant and property	1,580,000	1,970,000	2,175,000	3,110,000
	$1,915,000	$2,490,000	$2,569,500	$3,750,000

Liabilities	A	B	C	D
Notes payable	$ 90,000	$ 100,000	$ 160,000	$ 220,000
Accounts payable to A		40,000		
" " " B			50,000	
" " " C				75,000
Capital stock	1,000,000	1,400,000	2,000,000	3,000,000
Surplus	825,000	950,000	359,500	455,000
	$1,915,000	$2,490,000	$2,569,500	$3,750,000

The capital stock of the several companies owned by the other companies was purchased at par and is carried on the books at cost in each instance.

A consolidation is proposed and decided upon, and the N Banking Company is engaged to make the necessary arrangements for this purpose. The banking company succeeds in securing agreements from the stockholders of the four companies, A, B, C and D, all complying with the terms of the proposal whereby a new company is to be organized and known as the X Y Company.

During the past five years, dividends have been paid annually as follows:—A, 16.55 per cent., B, 17 per cent., C, 15 per cent. and D, 12½ per cent. It is agreed to prorate goodwill among the companies on the ratio of the amount of dividends paid by each during the past five years. It is further agreed that the return of all merchandise sold to, and bought by, one or other of the companies, be accepted and that the full price paid therefor be allowed. The average percentage of net profit on inter-company sales has been A, 20; B, 30; C, 25; D, 35.

The raw materials of D were all bought from C, those of C were bought from B, and those of B from A. A purchased its raw materials in the open market.

The inventories of all companies have been carried on the books at cost.

The X Y Company's authorized capital stock is to consist of 2,000,000 shares of no par value. The stockholders of A, B, C and D have agreed to accept 1,500,000 shares, in return for their own stock and holdings of the other companies, which are to be issued at the nominal value of $10 each in payment of their individual interests in the respective companies. Five hundred thousand shares are to be held for sale by the N Banking Company at not less than $10 a share.

The estimated amount of reorganization and financing expenses is $2,000,000 and is to be paid from the proceeds of the sale of the stock held by the banking company. The balance of the proceeds of the sale of the stock is to be turned over to the X Y Company as additional working capital.

From the foregoing, after giving effect to the transactions enumerated, prepare

(1) Balance-sheet of the X Y Company, to submit to the clientele of the N Banking Company for investment purposes.

(2) Statement of the amount of shares of capital stock that will be received by the holders of stock of A, B, C and D respectively.

No. 4 (10 points):

A fire partly destroyed the building of Company N, resulting in a loss of $20,000. The sound value of the building was determined to be $50,000.

Because of a misunderstanding between the insurance companies and the broker, or negligence on the part of the broker, insurance was carried as follows:

Insurance company	Co-insurance clauses	Amount of insurance
W	None	$10,000
X	100%	10,000
Y	90%	7,500
Z	80%	7,500
		$35,000

The above policies carry a clause to the effect that the insurance company will not be liable for any more of the loss than the ratio which the amount of the policy bears to the insurance, collectible or not.

Compute the amount the assured will receive on each policy.

Accountant's Audit Certificate or Report in Relation to His Responsibilities*

By James Hall

The subject of my paper was no doubt assigned to me for submission to you because of the thought which I believe prevails at present among many accountants that the various forms of audit certificates or reports used by accountants should be changed in certain respects, and that greater uniformity of presentation should be our aim, with a view to precision of statement, desirable in itself, and as a safeguard against possible misinterpretation which, experience shows, might arise from the construction placed upon the language under an exacting scrutiny, and with the further purpose of properly restricting the obligations of the accountant to the parties to whom he owes a duty.

To their employer accountants owe (a) "a duty growing out of contract to make their certificate with the care and caution proper to their calling" and (b) "a duty imposed by law to make it without fraud." In a word, the accountant must, as a positive duty, exercise due care and professional skill; and his certificate must be free from the taint of fraud which "includes the pretense of knowledge when knowledge there is none."

The recent judgment of the New York court of appeals that an accountant's liability for negligence is bounded by the contract was received with a satisfaction that comes of confirmation of what is believed to be right, reasonable and just. The doctrine of privity of contract, though vigorously assailed, was upheld in the decision, which will have a salutary effect on further attempts to enlarge the legitimate boundaries of an accountant's responsibilities, as it reaffirms his firmly grounded right, that should not be challenged, to that same measure of protection as the law affords to every party to a contract.

At the same time we must recognize that, in the special circumstances surrounding an engagement, responsibility may not be restricted within the bounds of the contract; an accountability to other parties coördinate with the contract may be recognized by the courts as the basis of a valid cause of action. Responsibility for gross negligence, properly demonstrated—not

*Address delivered at the annual meeting of the American Institute of Accountants, September 16, 1931, at Philadelphia, Pennsylvania.

merely the vigorous assertion of a determined litigant—is recognized as, so to speak, inherent in the calling; there is no dispute as to that, and I think it is fair to state that in their comparatively brief history as a recognized profession accountants have not been unmindful of their responsibility.

In any consideration of the subject one must of necessity have well in mind what an accountant undertakes to do. There are many classes of service rendered and the work required under each will differ according to the class, the nature of the engagement and the obligation or responsibility thereunder. Undoubtedly the main portion of the work of the usual accountant's office consists of periodical audits of the accounts of industrial and mercantile concerns. That being the main classification my remarks will be directed particularly thereto in relation to the responsibilities of the accountant and the form of certificate or report.

Such audits may be confined to a substantiation of the balance-sheet, submitted to the accountant by the client, in which are incorporated the assets and liabilities shown by the books at a specified date, or they may be extended to cover an examination or review of the operating accounts for a period. Each engagement to make an audit must be considered separately by the accountant with regard to the specification to be drawn to indicate the character and extent of the examination work required, taking into consideration the nature of the engagement, the kind of business under examination, the condition of the records, the existence or non-existence of internal methods of control and so forth. As an aid to us we have the excellent pamphlet *Verification of financial statements*—a method of procedure suggested by the American Institute of Accountants (revised May, 1929) commonly called the "federal reserve board bulletin"—and it may be appropriate at this point to quote a part of the "general instructions" included therein as follows:

"The procedure described is designed for the auditor's use primarily in the case of industrial and mercantile concerns, but it is also applicable in the case of most other business enterprises. The extent of the verification will be determined by the conditions in each concern. In some cases the auditor may find it necessary to verify a substantial portion or all of the transactions recorded upon the books. In others, where the system of internal check is good, tests only may suffice. The responsibility for the extent of the work required must be assumed by the auditor. This procedure will not necessarily disclose defalcations nor every understatement of assets concealed in the records of operating transactions or by manipulation of the accounts."

In view of the discussions and opinions that have recently occupied our attention some brief consideration may here be given to the "test" method above referred to, or, as it is sometimes described, the "testing and sampling" method.

The inherent limitations of that method are recognized; such a practice is not ideal and no one pretends that it is. Under proper conditions it is practicable, reasonably effective, as well as economical of effort and expense but, as is well understood, its application in any particular case is largely a matter of judgment and discretion and postulates as essential conditions (1) that the accounts examined are fair (i. e., true or honest) upon their face, (2) that there is no reason to question the integrity of the personnel, and (3) that a properly coördinated, though not necessarily a highly refined, system of accounts is in use, regard being had to particular conditions, and supplemented by some acceptable form of internal control. I think I should remark here, so as to remove persistent misconceptions that have a rather surprising range, that as a practical matter, in dealing with the accounts of any size at all, the so-called "testing and sampling" method is not merely a permissible procedure but is the only practical way of conducting the engagement.

I should like to emphasize that it is impossible to set down in inflexible terms the invariable detailed procedure the accountant must follow in all cases in order to justify his certificate or report. He must be qualified by education and experience to carry out the work he has undertaken; he must exercise skill, vigilance and discretion to a reasonable degree; the opinions he forms must be determined from a careful weighing of the evidence; he is not an insurer, and he can not be expected to assume unreasonable burdens.

However an accountant's certificate or report may be defined, it certainly is not a blanket policy of indemnity convertible into a blank cheque at the option of the transferee; and I would here inject that it is one thing for an accountant to accept, as he does, an equitable measure of accountability, but it is quite another to be saddled with the intolerably onerous burden as unconditional guarantor of the accounts he has examined. Briefly, but emphatically, an auditor is not an insurer; neither good sense nor good business should seek to hold him as such.

There is no attempt to minimize an accountant's responsibility for gross negligence to his employer, but it is startling to find in the dicta of the court in a recent case that an accountant may be held to owe a duty to the world at large. Such a doctrine bridges the deep chasm between gross negligence and fraud, and declares that negligence may be held to be of such a nature and degree as to constitute, by legal definition, fraud. Stated in other terms, negligence may be regarded as a major aspect of a fraud which it shapes and characterizes.

Of course, I do not mean to say that negligence, particularly gross negligence, is to be dismissed by a spacious gesture and pietistic professions of regret. It is far too serious a matter to be in any way so lightly regarded. As a matter of fact, whether legal accountability is exacted or not, a public accountant to whom negligence is imputed, whether or not he be the unfortunate victim of circumstances, will liquidate his experience at heavy cost by the very fact that his professional capacity has been openly challenged, even though the courts hold him blameless. An assertion of negligence as a cause of action in itself assesses damages on the accountant in a very real sense. In business and financial circles, the ultimate arbiters of advancement in his calling, his probity and capacity are appraised in the spotlight of publicity, colored more or less by censorious criticism that tends to prejudge every issue before the facts are sifted; and, circumscribed by the rules of evidence, he is called upon by hostile counsel, with the privilege and purpose of an advocate, to defend and justify procedure in a set of circumstances now illumined by the certain knowledge of hindsight. The accountant, it is true, has his day in court, but none the less the suggestions and implications developed by an adroit legal adversary tend to create the impression that with so much smoke there must have been a fire.

A perplexing phase of the question is this: In a given case what is the measure of damages assessable against the accountant for conceded or judicially determined negligence—either simple negligence, or gross negligence which might be held to be fraud? By way of illustration let us refer to the recent case previously mentioned. Here the plaintiffs (creditors of the company whose accounts had been reported upon by the defendant firm of accountants), who had sustained a loss of some $190,000 by relying, so they averred, on the accountants' certificate, made claim for full reimbursement of such loss, which they asserted as a cause of action resulted from the negligence of the accountants. Further, the jury in the trial term awarded the full amount claimed and although that award was set aside the fact is mentioned because of the possibilities it projects. Other suits were entered on the same grounds so that, in short, legal action was invoked to recover from the accountants, I understand, over $500,000 in all. It may be added that the accountants had been paid $1,100 for the work they had done. Now, it is submitted that, if the measure of damages is the total loss sustained by creditors who relied on the accountants' certificate, then—a valid right of action being assumed—this is tantamount to holding, whatever the theories may be, that in his capacity as auditor the accountant, if negligent, assumes the obligations of a guarantor. The equivalence seems pretty well complete. If there is a distinction, in practical effect, where is it? The accountant may have been negligent though not wilfully or perversely indifferent; he may have erred in judgment; he may have relaxed his vigilance; his conclusions may have been fallacious or his procedure imprudent or defective; but, granting any of these circumstances, if his motives reflected in his conduct were not fraudulent in purpose, then to argue his accountability to the full extent of losses, which would or might have been prevented by a more skillful performance of the duties he undertook, is to assert that an auditor is thereby in effect an insurer who must indemnify his employer, and possibly others standing in the latter's place, for losses attributable to an incorrect and therefore misleading statement.

I am not condoning error nor am I seeking to dilute the serious consequences properly issuing from either carelessness or professional ineptitude, but I do venture to affirm that a doctrine of complete accountability such as I have outlined seems an extravagant notion that violates the rule of reason. Extending the court's observation in another setting, the hazards of a calling conducted on these terms are so extreme as to enkindle doubt whether a flaw may not exist in the implication of a duty that exposes the consequences of so crushing a penalty.

In any given case of negligence is it to be maintained that the passivity of the accountant—his negligence—is completely answerable in heavy damages for the active and designed deceit of the employer who falsifies or otherwise manipulates his records? Is it not nearer the truth to say that, in a large measure—for the deceit is definitely determinable while negligence is almost always debatable—the proximate and moving cause of such losses as we are now considering resides in the action of the principals who planned the deception whereby they secured benefits which would or might have been denied if the facts had been disclosed. Actually a joint and several liability at law would appear to merge simply into a separate liability of the accountant.

Of course, it may be rejoined that the responsibility of the accountant in the scope of his employment is a fact and that we may be assured that the extent of the damages assessable against him by legal process will be modified by the particular circumstances, among which may be mentioned the nature, methods and extent of the deceit practised by his employer as well as the contributory negligence, if any be evidenced, of the party wronged. This may be good theory but it does not seem to receive much support from the dicta of the court.

It would be decidedly inimical to the development of the profession if those whom we serve felt that we were endeavoring to evade or neutralize a due measure of responsibility, just as it could be a misfortune of major proportions if the confidence, which we like to think has been earned by trustworthy service and by long continued constructive effort to that end, were impaired by fostering the belief that the accountant's professional creed hedged and restricted his responsibility by unwarranted disclaimers. Negligence—and especially gross negligence—should bear its penalties: this should be and is, I think, conceded unreservedly. At the same time the doctrine of "the proximate and moving cause" is legitimately to be stressed and vigorously urged with a view to modifying the extreme hazards to which an accountant is exposed. Liability for negligence is one thing; the obligations of an insurer, in fact if not in name, should be quite another.

At the completion of an audit the accountant is expected to render a report of his conclusions. Sometimes this takes the form of a report making detailed references to the various assets and liabilities dealt with, also to the results of the operations, but the more or less common practice is to give a report, commonly called a certificate, wherein it is stated that the examination has been made and that, in the opinion of the accountant, based on his examination and information furnished to him, the accounts presented set forth the financial condition and the results of the operations. Any informative or qualifying statement which the accountant considers essential will, of course, be incorporated. Such a report or certificate is sometimes described as the "short" form to distinguish it from the form described as the "long" form, in which is included all that appears in the short form and in addition brief references to cash, accounts receivable, inventories, fixed assets and depreciation applicable thereto, current liabilities, etc. The long form is intended to be informative but it has limitations. Obviously it could not be as informative as a detailed report. It has some merit, but I doubt the desirability of continuing to attempt to deal with some aspects of the accounts when a practical length of certificate prohibits reference to the many matters usually found in a detailed report. The adoption of the British and Canadian practice of a short form of report (without necessarily adopting their wording) seems preferable. It is not possible to explain in either the short or long form all that the accountant has done to satisfy himself regarding the statements presented. The attitude of the client should be that he believes the accountant has carried out his audit work in the usual professional way before reporting and that there is, therefore, no need for more than a formal report, i. e., without elaboration as to specific items where the customary examination as to these has been carried out and they are correctly stated. This is especially so having regard to the development of a tendency to place explanatory and informative wording directly alongside certain balance-sheet and profit-and-loss account entries. The recommendation contained in the federal reserve board bulletin previously referred to is that "the auditor's certificate should be as concise as may be consistent with a correct statement of the facts." Permit me now to submit my suggestion as to a form of report (certificate):

Form of report for balance-sheet examinations

To the president (or To the board of directors, or To the stockholders, or To A. B. C. Company, Inc., or as otherwise required):

A. B. C. Company, Inc.,
New York, N. Y.

We have examined the accounts relating to the assets and liabilities of the A. B. C. Company, Inc., as at December 31, 1930. In our opinion, based on our examination and information furnished to us,* the accompanying balance-sheet sets forth the financial condition of the company at that date.

(Signature)

New York,
March 1, 1931.

Form of report for examinations for one year (or other period)

To the president (or To the board of directors, or To the stockholders, or To A. B. C. Company, Inc., or as may be required):

A. B. C. Company, Inc.,
New York, N. Y.

We have examined the accounts of the A. B. C. Company, Inc., for the year ended December 31, 1930. In our opinion, based on our examination and information furnished to us,* the accompanying balance-sheet and relative profit-and-loss and surplus accounts set forth the financial condition of the company as at December 31, 1930 and the result of the operations for the year.

(Signature)

New York,
March 1, 1931.

These forms can be extended so as to incorporate explanations, qualifications or clarifying information, which may be considered essential, and at this point let me say that the basis of the valuation of inventories should always be shown either on the balance-sheet or in the report. With regard to the inclusion of any additional clauses the use of clear and concise language is imperative, also the avoidance of words which have a double meaning, while it seems pertinent to suggest that clients be advised as to what they ought to do to avoid the necessity for qualifying clauses in future reports.

Reference has been made above to the inclusion in the report, where necessary, of explanations, qualifications or informative comment. As a rule such exceptions and explanations will enable the accountant to deal briefly, yet adequately, with material and relevant matters consideration of which is essential or desirable for a proper understanding of the certificate-report and the accompanying statements, e. g., the balance-sheet. Cases may arise, however, where the material exceptions to be taken are so numerous as to transform the certificate substantially into a narration of major qualifications, which project queries and disclaim-

* Whenever necessary and applicable insert " . . . and subject to the qualifications (or 'observations,' or 'and observations') indicated . . ."

ers instead of conveying assurances, so that the essential character of the certificate is largely denatured by cumulative negations. Or again, the course of dealing as disclosed by the examination may engender doubt as to the integrity of the accounts, even though adjustments have been made for all errors disclosed by the examination. Such a condition may arise from loose business methods, transactions of doubtful validity, lack of good faith, or possibly a deliberate attempt to deceive. For example, there may be disclosed an attempt to bolster up the company by manifest manipulation of the accounts. These cases are not common, but they do occur.

Now I am not suggesting that the accountant should be arbitrary in his attitude nor should he be over-zealous in stressing technical niceties, but if he is confronted with some such situation as that indicated he should definitely refuse to issue a certificate-report but should submit the accounts with a detailed report setting forth the position in clear and definite terms.

While it is by no means the usual thing, yet often enough a certificate-report is read with casual concern as to the substance so long as it is formally complete with the accountant's certificate appended. Instances from one's own experience will attest that. Of course, the accountant is not accountable for whatever unfortunate consequences follow such carelessness or indifference; but where the circumstances so require he may forestall regrettable incidents by a complete, detailed report, thus avoiding possible misunderstanding from an indecisive reading of the compact statements of a formal certificate-report.

In a word, a certificate-report should not be issued unless it is warranted.

In considering the detailed report it may be remarked, indeed, I think it might be stressed, that clearness of statement is the first consideration and should not be sacrificed to brevity. "I labor to be brief and become obscure": thus admonished, we should recognize that while brevity is so excellent a quality, the primacy of perspicuity should not be challenged. Further, equivocal language is especially to be deprecated, and rightly so. Faulty drafting resulting in obscurity is bad enough, but adroit evasion by subtle phrasing is intolerable and, moreover, it may lead to far-reaching and disastrous consequences to which, as a matter of common prudence apart from other considerations, the accountant should not permit himself to be exposed.

In a case of great importance recently before the English courts it was observed: "It is so very easy for a clever person to put forward a document with regard to which he can rightly say 'every sentence is true,' and yet the document as a whole is false"; or, again, to emphasize the thought I am trying to impress upon you, "If by a number of statements you intentionally give a false impression and induce a person to act upon it, it is not the less false although if one takes each statement by itself there may be a difficulty in saying that any specific statement is untrue."

It is a serious thing to be answerable in damages in a civil suit for negligence, but to stand accused on a criminal charge arising out of professional duties, as was the accountant in the case to which I have referred, is about the utmost limit of malevolent circumstance which with Draconian severity moves to the final outcome, even though, as happily was the result in the instant case, the accountant is exonerated from the charge of wrong doing. But he was not spared the humiliation of having his probity and his high professional reputation, attested by a long and honorable career, publicly assailed as a subject of general, uninformed comment. In a man of deep sensibility the inevitable scars can never be erased.

No effort is too great and no care too exacting that safeguards the accountant in the performance of his duties from possible penalties such as that projected in the case mentioned and so, enjoining the greatest care and precision in preparing reports, as well as statements, I would offer as a warning word that "the fact without the truth is futile; indeed the fact without the truth is false."

Time does not permit nor does the occasion require any extended reference to the so-called balance-sheet audit, one feature of which, however, calls for brief mention in considering our subject. As is well understood, I think, the primary purpose of such an audit, or examination to use a preferable term, is the verification, within certain limits, of the financial position at a given date, usually the end of the fiscal period. The accounts, and particularly those relating to operations, are not examined in detail for a given period except so far as is essential to the stated purpose.

It seems clear enough, therefore, that it is inexact to state in the report that, for example, "the accounts have been examined for the year ended December 31, 1930," when, in fact, the examination has been restricted to the financial position at the closing date. Possibly the fault is one of repression rather than of meaning, but it is probable that, in the event of litigation or other dispute, the accountant would be held within the bounds of his formal statement of wider application than that intended. The inexactitude may thus prove a costly lapse, just as in a decided case the Erie Railroad was "held for words and nothing more," or at the best a troublesome experience in explaining the real intent and the restricted scope of the examination.

To repeat, then, a balance-sheet audit comprehends the examination of the financial position at a given date: the report should so state, instead of the erroneous "we have examined the accounts for the year." Perhaps this phase of our topic stands in no particular need of emphasis but certain cases have come to my attention that make the reminder—or, according to your viewpoint, the proposal—not untimely.

The addressing of the report to a person or body is done with the intention of making it clear for whom the examination is made and to recognize distinctly the party to whom the accountant is responsible.

As a measure of prudence the accountant's report should be specifically addressed to the party, or his accredited representative, with whom direct contractual relations exist. The following procedure is recommended:

(a) Where it is known that the report will be issued to stockholders and the interested public, it should be addressed "To the board of directors."

(b) Address the report "To the stockholders" when the appointment is made directly by them.

(c) Address the report to a specific body, such as "The auditing committee" when the employment by it is direct or according to instructions or documents.

(d) In the case of a one-man company, e. g., where the president is substantially in control of the capital stock, the report should be addressed "To the president."

(e) Address the report "To the . . . company" when the conditions under (a), (b), (c) and (d) do not apply.

(f) If the by-laws of a corporation or the requirements of a partnership deed provide that the report should be submitted to a specified person or body, such a provision should be recognized in the addressing of the report.

You will observe that certain words heretofore frequently used in such reports have been omitted from the forms I suggest. The use of a heading "certificate of auditors," and the words "certificate" and "certify" are omitted because they probably are liable to misinterpretation as implying a guarantee never intended.

The underlying idea is aptly illustrated in the following quotation from a recent issue of the *Wall Street Journal:*

> "The profession is beginning to realize that because its activities are 'certified' to be within the law, it should not necessarily 'certify' the absolute identity of its figures with all the figures on the books of the corporation it has audited.
>
> "When a lawyer is called on for an opinion, neither his client nor the public expect him to imply his licentiate by asserting that 'legally I opine' such and so. Why, therefore, should a certified public accountant be expected to say 'I certify so and so'? Both client and the public might well be better satisfied if the accountant should say: 'I have examined the records of the company, both in the books and elsewhere, and as a result I believe that the condition of affairs is correctly shown in the accompanying statements.'
>
> "That is all it is humanly possible for him to do, in any case."

The words "verify" and "verification" suggest that the auditor has taken the responsibility of asserting that he has proved the truth of the items or statements referred to, whereas certain items or statements may be matters of judgment or opinion or their correctness may have been accepted on the basis of tests. The words "confirm" or "confirmation" may be more appropriate if such references must be made.

The words "correctly" or "properly" or "fairly" have heretofore appeared in some certificates in front of the words " . . . sets forth the financial condition . . ." These are omitted for the reason that they do not appear to be essential, more particularly in view of the use of the words "in our opinion, based on our examination and information furnished to us . . ." Further, at least as regards "correctly" and "properly," the elimination of them removes an emphasis which it is probably desirable not to convey, as such words might be interpreted as implying an accuracy or exactness not intended, especially where, and as is usual, the accounts contain items which, as to their valuation, are matters of opinion, or judgment, or their correctness has only been accepted on the basis of tests. The use of the words "in our opinion" is properly continued, for they serve as notice and caution to the reader that the accounts reported upon contain elements of opinion or judgment based on facts ascertained, tests made or information furnished and considered. The use of the words "in our opinion" does not relieve an accountant of responsibility for negligence for he is required to use due care and diligence in forming an opinion. Again, the words ". . . and information furnished to us . . ." are considered essential because of the many instances where the accountant is dependent upon information furnished to him by persons having intimate knowledge of certain transactions as supplementary to the information contained in the accounts and the usual related vouchers and supporting data.

Because of its bearing, to some extent, on what I have stated, I should now like to quote Lord Plender's view of a balance-sheet as expressed by him in a recent legal case in London:

> "Every balance-sheet is a summation of facts and opinions which should represent what, in the judgment of the directors, is a fair statement of the financial position of the company, having regard to the object for which it was formed and the existing circumstances and future maintenance of its business. It should be drawn up in such a manner as to afford the shareholders an adequate means of ascertaining, by perusal and inquiry, the value of their interests without disclosing information likely to cause loss or injury to the business. It is the province of the auditor to apply his trained mind to a critical examination of the balance-sheet with a view of seeing whether, in his opinion, it substantially fulfills these conditions. He is not required to certify to an exact state of affairs but he must be satisfied, in the light of the evidence available to him, that the balance-sheet is properly drawn up in accordance with customary usage."

To this, perhaps, I should add with some emphasis that the auditor is not responsible for executive policies and business procedure except as they are reflected in the accounts under examination. An accountant may, of course, advise his client on matters of business but any such service is quite apart from his duty as auditor; and a clear distinction should be made between the separate functions.

Some further brief consideration may be given to the words "in my opinion" since, singularly enough, there appears to be some misunderstanding as to their import and meaning in the setting with which we are immediately concerned—the accountant's certificate or report. The usage, in conjunction with the discredited "we certify," probably accounts for the emergent misconception that, as a sort of routine procedure, sanctioned by practice, the words "in our opinion" are injected as though they formed a saving clause modifying the rather pretentious "I hereby certify"; or, again, it may be that the specialized, technical meaning, though really the true meaning, is confused with the loose connotations assigned in casual conversation, where fancy often roams with small restraint and less regard to the distinctions of tiresome, pedantic exactitude. A fleeting impression becomes an opinion, although reflection shows there is no ground for any opinion at all, for opinion should be based on judgment which implies observation, knowledge and reasoning. Still further, a contention is often summarily dismissed with the rejoinder: "Oh, that's merely your opinion." Well, there's no "merely" to be attached to the words "in my opinion" as used in an accountant's report where with controlling force they have a much deeper significance and form, so to speak, the cornerstone of the whole structure. In the first place "in my opinion" means that the accountant has exercised his own independent judgment and is not formulating a series of impressions or the views of others and, secondly, it is implied that such judgment is based on an adequate examination of the facts with due professional skill and is believed to be true. Thus, to summarize, "in my opinion" conveys the assurance of (a) an independent judgment, believed to be true, and (b) the exercise of proper skill by one competent to form that judgment. While I know that the significance to be attached to an opinion, formally expressed in a report, and the responsibility therefor, are well understood by the large body of accountants, it does seem pertinent to seek to remove by timely admonition the lingering misconception that persistently outcrops.

I would caution accountants to be sure that they have a clear understanding with clients as to the nature of their employment, for the nature of the employment will govern the character and extent of the responsibility assumed. In making such arrangements, accountants should make it clear as to (1) the person with whom the engagement is made, (2) the person or body for whom the examination is to be made and to whom the report is to be directed, (3) the character or nature and extent of the work to be done, (4) the fact that the accountant is not a guarantor as to the discovery of irregularities, and the obligation of the client to maintain appropriate measures of internal control as the principal safeguard against such irregularities, and (5) the basis of compensation.

Vigilance should be exercised as to the manner in which reports are used, especially in cases where copies are ordered for delivery by the accountant to third parties. Such parties, at the time of delivery, should be informed, in effect, that the report is based on an examination made on behalf of and in accordance with the terms and conditions of the arrangement with the client.

Anything like a full discussion of many of the important features of our topic would greatly exceed the time allotted, while other related matters of pertinence have had to be omitted. However, the salient points to which I have directed attention will, I trust, arouse some measure of interest and promote that full consideration on which rests a clear understanding of our duties and responsibilities.

Power Cost Accounts

III. TRANSMISSION AND APPLICATION

BY JOHN WHITMORE

"Production departments in general are great wasters of power." Gibson, *Industrial Management*, January, 1927.

Steam is used in reciprocating engines to develop mechanical power which may be transmitted throughout factories for all its uses by means of shafting, pulleys and belting; or it may be used in reciprocating engines or steam turbines direct-connected to electrical generators or air compressors. Either as live or exhaust steam it is used to operate low-pressure turbines, and for various manufacturing processes, and for the heating of buildings.

Electrical current is either alternating or direct, the one or the other form being best suited to particular purposes, or to particular conditions of transmission. It may be converted from either form to the other, and from higher to lower voltages or vice versa. There are friction losses in all power transmissions, and there are losses in all transformations of electrical current.

Electrical transmission and conversion losses are determined by metering. Mechanical power transmission losses are almost necessarily calculated, but may be tested by the known requirements of power for driving machines. But the latter also is an approximation as both the condition of the machines and the work performed are subject to continual variations.

In the preceding article I considered the determination of both quantities and prices of steam to be charged to manufacturing departments, or to individual processes or units of equipment, or to other uses such as boiler feed water heating or the factory heating system. I will consider here the determination of quantities and prices of electric current similarly to be charged to manufacturing departments and various ultimate uses.

Purchased current is usually alternating current of a high voltage, or it may be direct current. Probably current in both forms will be used in a factory with electrically driven machinery. If electric current is generated within the plant, it may be either alternating or direct, or separate generators may be operated to give current in the two forms. If current is received or generated in a single form and part of it is converted into the other form, the natural procedure in the accounting is to set up first an account representing the original current as purchased or generated, quantity, and total and unit cost. This current may be in part delivered and metered to manufacturing departments, and in part delivered and metered to sub-stations for conversion, let us say, from alternating to direct current. An account may then be set up for direct current of the voltage, or voltages, produced by the sub-station apparatus. To this account is charged the current delivered to the sub-station, and all the sub-station operating expenses and charges. The direct current delivered by the sub-station is metered, and a unit cost for this product is determined. If the alternating current is simply changed as to voltage, the same procedure is to be followed, a new account being opened at each stage for current in its new form and at its new cost.

As often as the cost of transmitted current is determined, it must include the cost of transmission to the point of such determination. The standing orders for the maintenance of transmission lines must be arranged to give the necessary separate figures.* There is a new determination of cost whenever current is transformed, and there is a final determination of cost when current is delivered to a manufacturing department or to other uses. The standing orders for the maintenance of transmission lines should correspond to all such successive stages of transmission, so that their monthly totals shall be brought into the accounts at the proper points.

The foregoing procedure is very simple and convenient, and it may be quite proper. If one purchases current one takes it in the form in which the central station delivers it. If one needs all or any part of it in another form, the change will give an increased cost to whatever part of it is converted. Similarly if one generates power, and uses it in both alternating and direct forms, the conditions may determine absolutely that all of it shall be generated in the one form or in the other, and some part of it converted. In either case it seems that the conversion costs must fall on the product of conversion.

I am not sure, however, that it is to be assumed that this would always be correct. Wherever a single generator is operated and part of the current is used as generated and part is converted, the question whether we have current in two forms at substantially

*Footnote relative to standing and special repair orders in the first of these three articles. See *The Journal of Accountancy*, October, 1931.

different costs per kilowatt hour, or whether we have current in two forms at a common cost per kilowatt hour, should I believe be considered afresh in the light of all the conditions.* If, as I have suggested, standard costs are calculated for the kilowatt hour of direct current and the kilowatt hour of alternating current, and if the two are derived from a single original source, any questions as to the attribution of expenses to the one or the other, or to both in common, will be independently and critically considered in the process of making these calculations, and the bookkeeping procedure will conform to the procedure in calculating the standard costs.

The usefulness of standard costs for the units of steam and electrical and other power is in part in its separation of a proportion of the expense of under-operated facilities from the cost of actual production. Power equipment is provided for full operation, and if when a factory is only partially operated, the power for such partial operation includes the full expense of operating the power plant, as also the cost of its lowered steam economy, and if the resulting cost of power is carried through to the cost of products, then however the costs of products may otherwise be relieved of the cost of idle facilities, some and at times a large amount of such expense is still borne in the power charges. As far as there is a constant standard of efficiency and a constant volume of production, standard costs and actual costs should be closely similar. If either of these conditions fails, it is better and sometimes essential that the expense be separated and shown plainly, rather than that it be allowed to flow untraced into the costs of products. The separation is very simple and complete if it is effected by the use of standard cost figures for the units of steam and electrical power in the way I have outlined in the first of these three articles.

This, of course, does not in the slightest degree affect the continuous statement of the actual costs of generation, conversion and transmission, but on the contrary maintains a continuous com-

* "In the case of an individual shop power plant in which the amount of power required by the shop is large, and there is no public service corporation to rely upon in the neighborhood, the question of direct or alternating current is partly dependent on the area covered by the plant, and partly dependent upon the need for adjustable speed motors. Alternating current is satisfactory both for small and for large plants from the viewpoint of distribution, but from this same viewpoint direct current is hardly suitable for a plant extending over a considerable area, because of the large drop in voltage due to the long lines required and the relatively low supply voltages usually employed with direct current systems of distribution. Adjustable speed motors are, however, mainly of the direct current type, and where their use is essential, it may be found desirable to employ alternating current for the main distribution circuits, and to transform from alternating to direct current by rotary converters or motor-generator sets, to meet the need of a source of direct current for motors of this type." (*Engineering of Power Plants*, Fernald & Orrok, p. 384.)

parison between the actual costs of power, in every form and at every stage, and the standards in which it is aimed to embody all practically attainable efficiencies of operation and all practically attainable economies of expenditure.

There are still electric power expenses to be incurred within the manufacturing departments, after the current has been metered thereto. These are primarily expenses of transmission and of the conversion of electrical current into mechanical power, that is, the expenses of transmission lines and motors. The cost of electric power in the machine rate (hereafter to be considered) is standardized on the basis of electric current input to the motors at the cost as metered to the department, plus the rate given by the electric power expense account of the department.

There are, however, special losses and expenses arising in the operation of electrical apparatus in the case of alternating current, due to variations of what is called the power factor of alternating current circuits. Electricity is measured in terms of amperes and volts, or watts. Amperes express the volume of current flowing, volts the pressure, and watts the effective power. In the case of direct current, amperes multiplied by volts equals watts. The power factor here is said to be "100 per cent., that is, the product of volts and amperes gives true power." * In the case of alternating current, there are what are called "apparent watts" (amperes multiplied by volts), and "true watts" or effective power, the difference between the two arising from induction characteristics of alternating current apparatus. The power factor here is defined as "the ratio of electric power in watts to volt-amperes."† Power factor depends largely upon the suitability of all the electrical equipment (from generator to motors) to the average load. If the load is below normal the power factor is low. With low power factor there are certain wastes.‡

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* *American Electricians' Handbook*, Terrell Croft, p. 21.

† Suplee's *Mechanical Engineering*, p. 748.
See also *American Electricians' Handbook*, Terrell Croft, p. 23, "Kilowatts and Kilovolt-amperes."

‡ "The effect of low power factor is to increase the current necessary for the transmission of a given amount of power over that current which would transmit the same power in a circuit of unity power factor. This excess of current does not, in itself, represent an additional expenditure of energy, that is, it does not require more coal burned under the boilers. It does, however, involve slight additional energy expenditure, because it increases the power loss in the conductors which it traverses. It has the further undesirable feature of decreasing the effective capacities of the generators." (*Practical Electricity*, Terrell Croft.)
Also the following: *Industrial Management;* August, 1922, "Disadvantage of Low Power Factor," George E. MacLean; January, 1925, "The dollar value of Wasted Kilowatts," E. S. Lincoln; March, 1925, "The dollars and cents of Low Power Factor," Ottomar H. Henschel; December, 1925, "Wastes in Electric Power Distribution," A. G. Darling.

Certain apparatus may be used to improve the power factor of an alternating current circuit, that is, to effect the realization of a larger percentage of kilovolt-amperes of "apparent power" in kilowatts of "real power." Such are static condensers and synchronous condensers, which improve the conditions but produce no mechanical power; and synchronous motors, which both improve the conditions and drive additional machinery.* These give an additional electric power expense, increasing the department electric power expense account.

If then a synchronous motor, in addition to improving the power factor, drives machinery for purposes to which current should be charged as consumed (as to those mentioned in the footnote below), I believe the current in kilowatt hours metered to the synchronous motor at the unit cost charged the department, plus the average unit expense then given by the department electric power expense account, must be regarded as giving a correct power charge to the air compressors or other units so driven. That is, although the synchronous motor is a machine of a special character, performing the two functions of improving the power factor and driving machinery, I believe no variation from the simple routine of the departmental power accounts need arise.

A chart of electrical transmission lines, from generators to delivery of current to departments, showing form of current and voltage, and all transformations of the current, and the locations of all meters, is absolutely necessary. A copy of this marked with the totals of all meter readings for the month must at the close of the month be furnished by the power department to the accounting department.

Electrical power having been metered to a manufacturing department, the accounting instrument by which the economy of its application may be measured is the machine rate,† that is, the calculation of the total charge for the operation of each machine per hour. The machine rate is especially applicable to the machine tools of machine shops, the hammers and presses of steel works, and other units of equipment having in general similar

* "The synchronous motor is frequently run light merely to improve power factor or to control the voltage at some part of the power system. When so used the motor is called a synchronous condenser. The motor may however deliver mechanical power and at the same time take either lagging or leading current. Its common applications are drives for motor-generator sets, ammonia compressors in refrigerating plants, rubber mills, and air compressors." (*Marks' Handbook*, p. 1981.)

† The study of the machine rate must always begin with A. Hamilton Church's "Proper Distribution of the Expense Burden." (*The Engineering Magazine*, 1901.)

characteristics. Where machines are small and numerous, the expenses may be calculated for groups of machines, and if there is a practically uniform relationship between machine costs and direct labor within each group, the machine costs may be standardized in relation to direct labor. Under such circumstances no machine rate is used, but the standardization of the machine expenses in relation to the direct labor affords a constant and fairly effective check upon them all.

In the compilation of the machine rate, all the annual expenses and charges in respect of the factory buildings (as far as they are used for the immediate operations of manufacturing) are reduced to an annual charge for the unit of factory floor space, and each machine is charged with its proportion according to the floor space occupied by it. The annual expenses and charges in respect of the machine itself are then calculated, that is, all constant expenses which have to be borne whether the machine is more or less fully operated. These constant expenses of the machine and its building floor space are then divided by the assumed hours of operation in the year. This is the initial hourly rate. Then the hourly running expenses, exclusive of direct labor, are calculated. The first of these is power. When all running expenses except direct labor have been added to the initial rate the total is the hourly rate for the operation of the machine, chargeable to production.

The determination of the power item in the machine rate is primarily the determination of the average power consumption of each machine when running. Or if the machine performs different operations, or if it runs at different times on light and heavy work, then there must be determined an average power consumption figure under each of such conditions. The power consumption determinations for the machine rates, and the power consumption determinations for the purpose of securing the suitability of motors and other electrical equipment to the load, are absolutely the same thing.

I believe the perfect fitness of the machine rate in relation to the cost of power, the continual check upon power expenditures and power consumptions, and the accuracy of the distribution to the costs of products, is only one item of its perfect fitness in all its relations. It embodies practically all standards of economies in the wide range of operations to which it is applicable; it is the means of perfect measurement of the utilization of factory capacity; it is the simplest instrument for the calculation of costs before manufacture and for their recording during manufacture, and is the one means of determining true cost figures. I am therefore not assuming its use merely to render complete the means of measuring the economy of power expenditures, but because there is a complete and unbroken series of necessities for its use.

I will not enter upon a description of the accounting procedure which the use of the machine rate involves, except to indicate the way in which it gives a comparison each month and for each department of the standard power consumption for the actual operations, with the power taken by the department.

The operated hours, as recorded and charged into the cost accounts for the products, are summed up for each machine for the month. The machines are listed on a form with columns for the hourly rate and the operated hours, and the extension of these for each machine; and with columns corresponding to the various component parts of the machine rate. There is therefore an electric power column in which the total kilowatt hours, the standard price including departmental electric power expense, and the extension of these, are written. When this has been done for all the machines in the department, the addition of the column gives the electric power accounted for in the month for comparison with the cost of the same to the department. If in addition to the power accounted for in the machine rates, power is metered to any special use, this of course, is to be taken into account.

With regard to power mechanically transmitted from prime mover to ultimate use, so close a check is scarcely practicable, but a very useful check can be obtained. It is plainly a matter of great importance. The friction losses are said to range from 40 to 60 per cent. of the total power transmitted by the engine.*

The conditions under which an accounting is to be obtained, and the limitations thereof, are stated in an article by Terrell Croft in *Industrial Management* December, 1924, as follows:

"There is no convenient simple device whereby energy which is transmitted mechanically may be metered. Tests may be made periodically and under average conditions. To find transmission and utilization leaks by testing, a graphic wattmeter it used. Although this is an electrical instrument, it can—wherever electrical energy is available—be employed effectively in locating

* *Engineering of Power Plants*, Fernald & Orrok, pp. 381 and 382.

leaks in purely mechanical transmissions and equipment. If it is desired to ascertain the power input of a purely mechanical device, such as a length of line shafting or a machine tool, then that device may be temporarily belt driven by a motor and the power input to the motor recorded on the graphic wattmeter."

The power engineer therefore should be able to furnish figures of the power consumption of machines, for incorporation in the machine rates, under these conditions also. There will be no available figures for the power delivered to departments, and all that will be possible will be to ascertain what the standard consumption amounts to for all the machines in the factory, according to all their operated hours in the month, and by comparison of the horse-power hours so accounted for, with the horse-power hours delivered by the engine in the same period, to state a figure for transmission losses. It is said that "friction losses in shafting and belting remain nearly constant at all loads."* In this respect therefore the indication given by comparison of power developed and power accounted for, is of a fairly clear character. Apparently losses in the transmission of mechanical power vary over a wide range, and I believe from various causes which need constant watching. These are conditions under which any accounting figures that approximate a correct statement must be of value.

The following may now be added to the monthly tabulations:

Steam gains and losses	—boilers	$————
	—transmission	————
Direct current gains and losses	—generators	————
	—conversion and transmission	————
Alternating current gains and losses	—generators	————
	—transformers and transmission	————

Departmental electric power balances:

differences between total electric power cost to the department and the same charged into the costs of products, through machine rates or otherwise—each department separately

Mechanical power:

(a) Developed by engine	horse power hours	————
(b) Accounted for in ultimate uses	horse power hours	————
(c) Transmission losses	percentage	————

* *Engineering of Power Plants*, Fernald & Orrok, p. 382.

The plan of accounts indicated herein may be summarized consecutively as follows:

IN THE GENERAL LEDGER

Coal	controlling the coal stores ledger
Water	distributed to power and other uses as metered
Power	controlling the power cost ledger
Power cost gains and losses	a single account of which the particulars are in the power cost ledger

IN THE POWER COST LEDGER

Coal unloading, storing, crushing, etc.
    with sub-accounts for the various expenses
Pulverized coal
    with sub-accounts for the various pulverizing plant expenses
Water treatment expenses
    a series of expense accounts as indicated in article I
Boiler operation expenses
    a series of expense accounts as indicated in article I
Boilers, or separate boiler accounts
Steam
Steam transmission
Steam suspense
    as described in article II
Reciprocating engine
    separately, except where driving a single unit, as an electric generator, and then a single ultimate account for engine and generator, with all desirable sub-accounts. Possibly also a single account for reciprocating engine and low-pressure or bleeder turbine using the engine exhaust.
Mechanical power
Mechanical power transmission
    with all desirable sub-accounts
Turbo-generators and turbo-compressors
    a single ultimate account for each set, with all desirable sub-accounts
Accounts for any other generators and air compressors
Electric power accounts, being an account for electric power in each form and of each voltage, with any desirable intermediate accounts
Compressed air
Compressed air transmission

Steam gains and losses	—boilers
	—transmission
Mechanical power gains and losses	—engines
	—transmission

Direct current gains and losses	—generators
	—conversion and transmission
Alternating current gains and losses	—generators
	—transformers and transmission
Compressed air gains and losses	—compression
	—transmission

It being understood that all the foregoing are in comparison with standards. General ledger account—contra to the general ledger power account.

Words

BY BRUCE W. WHITE

How should an account be headed? The question, I suppose, has been a vexed one ever since scribes first began to try to save time by cutting little patterns on wet tiles or waxen tablets. But, today, there seems to survive a frantic desire to save time—and when a minute saved today means hours wasted later, the underlying economy of the saved minute is not very obvious.

To get closer to the subject, why do accountants label accounts with names that are either meaningless or misleading? There may have been some excuse in the bad old days, when there was a definite intention to frustrate the unauthorized searcher after information; but in this enlightened age, accountants realize that to get more than ragged scraps of information, the searcher requires uninterrupted time. The modern accounting system, seen in its entirety, is a model of logical sequences, and its value is appraised quite largely on its very clarity. Why, then, with such a skeleton to build upon, should the beauty of straight lines be marred by unsightly excrescences?

Brevity is the soul of wit—but overmuch brevity in account-titles obscures their meaning and seems to approach the acme of witlessness.

Clarity seems to me to be the butt we should aim at, and, if clarity means the use of two words for one or of an added word in an account-title, by all means let us have the extra word.

Accounting is not an exact science, because of the variety of its application (but the recording of facts can be made an exact matter) and without exact recording of facts on which to base and to which to apply our accounting theories, accounting becomes a mere waste of time.

Let the account-title be exactly descriptive. Why should anyone, accountant or layman, be expected to know that "consumers' accounts receivable" is an "income" account and should have been described as "income billed to consumers?" Examples of this nature could be endlessly multiplied, but to no good end. There may have been theories underlying such examples that appeared perfectly sound to their authors. Their only final outcome is confusion, which, I believe, was never intended to result from "system."

In any event, this effect of terminological inaccuracy affects accountants themselves rather than the general public. It is, however, sufficiently serious to be worth comment.

The other point at which accountants are beset by their own brevities is the inadequacy of the majority of "journal narrations." Many accountants, otherwise of stout calibre, never seem able to narrate a transaction so that another can follow it. If it is involved and affects several accounts confusion is worse confounded. Older accountants, who remember the agonies of disentangling "invested capital for the pre-war period" when the federal income tax first began to be a serious factor of accounting work, are less apt to offend here than men of lesser memories. For my own part, give me redundancy in narration—give me words—give me anything at all, save that sweet brevity that may be interpreted half a dozen ways ten years afterwards—or can not be interpreted at all. Reconstructing forgotten transactions from six words and two colons may be dignified by the term "constructive accounting," but many of the "constructors" of the "pre-war period" would dearly have loved to have the scalps of their tormentors.

So far, this laxity in words and their use and value has not hit the profession in its public relations except in the wasted time that must either annoy the client or swell up the bugaboo of "uncharged time"; but we now come to the worst effect—many men of affairs claim that accountants' reports do not tell them anything. They are either vague collections of words and phrases, ornamented by so-called "statements" that they can not understand, or they are so wrapped up and disguised in technicalities that they are not humanly understandable. Allow for a certain amount of pardonable exaggeration due to annoyance and there is still left enough weight in the complaint to justify the idea of quackery that haunts our labors in the public mind. I grant that certain forms in common use—notably the balance-sheet and statement of income and expense, profit-and-loss statement, or whatever you like to call it, have reached their present crystallization through experience; but that they are not altogether acceptable is clear. To the accountant they have definite values and meanings—not so to the layman. If this were not so why should one of the great New York banking houses have taken to publishing periodical statements of its condition with concise explanations for the layman. If accountants' reports were the models of crystalline logic they set out to be—and should be—such criticisms could not be leveled against them.

I think the accountant of today loves words. The roll of sonorous syllables hypnotizes him to his own undoing. There are doubtless some among us with a nice appreciation of word-values, but when a client finds in his report such phrases as "the quantification of the predicate" can you wonder that he throws up his hands and classifies accountants as a body of Windy Willies?

To set our house in order is not easy; it must be done from the inside and, seeing the type of youngsters who are now turning to accountancy as their life work it should not prove any herculean task.

Students' Department

H. P. Baumann, *Editor*

New York C. P. A. Examination

The following problem was set up by The University of the State of New York as problem 4 in the examination on practical accounting—part II, November 11, 1930:

Problem:

You are requested by the Walton Electric Dishwashing Corporation to prepare from the following information, for the year ended December 31, 1929, a statement of cost of manufacture and cost of manufactured machines sold. All inventory elements of materials, labor and overhead are to be shown therein in analyzed form inclusive of cost per machine.

Depreciation:	
Buildings	$ 6,000
Machinery and equipment	60,000
Tools	10,000
Finished machines:	
December 31, 1928	125,000
December 31, 1929	203,000
Indirect labor	242,000
Indirect materials consumed	54,460
Insurance on factory	18,700
Labor consumed in making company tools	4,000
Machines in process:	
December 31, 1928	400,000
December 31, 1929	547,000
Maintenance and repairs	39,265
Materials consumed in making company tools	1,000
Overhead charged in making company tools	6,000
Payroll total	692,000
Power, light and heat	37,650
Property taxes	12,950
Purchases of materials	1,625,000
Stores:	
December 31, 1928	404,460
December 31, 1929	380,000
Sundry factory expense	37,875

Cost elements in the inventories are as follows:

	1928	1929
Finished machines:		
Labor	$ 20,000	$ 28,000
Materials	100,000	133,000
Overhead	25,000	42,000
Machines in process:		
Labor	80,000	112,000
Materials	200,000	267,000
Overhead	100,000	168,000

Overhead is to be distributed on the basis of productive labor.

	Actual productive labor	Actual overhead	Rate used in costing
1928	$300,000	$480,000	125%
1929			150%

Statistics on the production and sale of machines are as follows:

Finished machines:	
December 31, 1928	$ 1,854
December 31, 1929	2,515
Machines in process:	
December 31, 1928	6,050
December 31, 1929	7,620
Sales	31,419

Solution:

Schedule 1

WALTON ELECTRIC DISHWASHING CORPORATION

Schedule of manufacturing overhead for the year ended December 31, 1929

Depreciation:		
Buildings	$ 6,000.00	
Machinery and equipment	60,000.00	
Tools	10,000.00	
		$ 76,000.00
Indirect labor		242,000.00
Indirect materials consumed		54,460.00
Insurance on factory		18,700.00
Maintenance and repairs		39,265.00
Power, light and heat		37,650.00
Property taxes		12,950.00
Sundry factory expense		37,875.00
Total manufacturing overhead		$518,900.00
Less—overhead chargeable to tools made by company		4,612.44
Manufacturing overhead chargeable to cost of manufacturing		$514,287.56

Schedule 2

WALTON ELECTRIC DISHWASHING CORPORATION

Schedule of direct labor for the year ended December 31, 1929

Payroll total		$692,000.00
Deduct—indirect labor	$242,000.00	
Labor consumed in making tools	4,000.00	
		246,000.00
Total direct labor		$446,000.00

The rate of manufacturing overhead to direct labor for the year 1929 should be set at 115.31+% as the actual manufacturing overhead amounted to $518,900 which is 115.31+% of the actual direct labor of $450,000.

The charge to tools made by the company for manufacturing overhead should be based upon the actual rate, rather than upon the estimated rate of 125%.

Cost of tools manufactured by the company:

Materials	$1,000.00
Direct labor	4,000.00
Manufacturing overhead (115.31+% of $4,000)	4,612.44
Total cost	$9,612.44

As the problem does not give sufficient data to enable the candidate to compute depreciation on these tools, no adjustment can be made in the amount of depreciation on tools set aside by the company.

Schedule 3

WALTON ELECTRIC DISHWASHING CORPORATION

Schedule of raw material used for the year ended December 31, 1929

Inventory, January 1, 1929		$ 404,460.00
Purchases of materials		1,625,000.00
Total		$2,029,460.00
Less—inventory, December 31, 1929		380,000.00
Materials used		$1,649,460.00
Less—materials consumed in making company tools	$ 1,000.00	
Indirect materials consumed	54,460.00	
		55,460.00
Raw materials used in production		$1,594,000.00

The inventories of finished machines and machines in process both at January 1, 1929 (December 31, 1928), and December 31, 1929, should be adjusted to give effect to the actual overhead rather than the estimated overhead for the respective years. During 1928 a rate of 125% was used in costing, while the actual rate was ($480,000÷$300,000) 160%.

	Machines in process	Finished machines
Inventories, January 1, 1929:		
Materials	$200,000.00	$100,000.00
Labor	80,000.00	20,000.00
Actual overhead (160% of labor)	128,000.00	32,000.00
Total	$408,000.00	$152,000.00

WALTON ELECTRIC DISHWASHING CORPORATION

Statement of cost of goods manufactured and sold in total and by units for the year ended December 31, 1929

	Total amount				By units				
	Materials	Labor	Mfg. overhead	Total	Machines	Materials	Labor	Mfg. overhead	Total
Machines in process January 1, 1929..........	$ 200,000.00	$ 80,000.00	$128,000.00	$ 408,000.00	6,050	$33.058	$13.223	$21.157	$67.438
Cost of manufacturing (schedules 1, 2 and 3) ...	1,594,000.00	446,000.00	514,287.56	2,554,287.56	33,650	47.370	13.254	15.283	75.907
Total................................	$1,794,000.00	$526,000.00	$642,287.56	$2,962,287.56	39,700	$45.189	$13.249	$16.179	$74.617
Deduct—machines in process, December 31, 1929	267,000.00	112,000.00	129,148.44	508,148.44	7,620	35.039	14.698	16.949	66.686
Cost of machines manufactured..........	$1,527,000.00	$414,000.00	$513,139.12	$2,454,139.12	32,080	$47.600	$12.905	$15.996	$76.501
Finished machines, January 1, 1929..........	100,000.00	20,000.00	32,000.00	152,000.00	1,854	53.937	10.788	17.260	81.985
Total................................	$1,627,000.00	$434,000.00	$545,139.12	$2,606,139.12	33,934	$47.946	$12.790	$16.065	$76.800
Deduct—finished machines December 31, 1929 ..	133,000.00	28,000.00	32,287.11	193,287.11	2,515	52.883	11.133	12.838	76.854
Cost of machines sold........................	$1,494,000.00	$406,000.00	$512,852.01	$2,412,852.01	31,419	$47.551	$12.922	$16.323	$76.796

The inventories at December 31, 1929, should be adjusted also to give effect to the actual rate of overhead of $115.31+%.

	Machines in process	Finished machines
Inventories, December 31, 1929:		
Materials	$267,000.00	$133,000.00
Labor	112,000.00	28,000.00
Actual overhead (115.31+% of labor)	129,148.44	32,287.11
Total	$508,148.44	$193,287.11

Illinois C. P. A. Examination

The following problem was set by the examiners in accountancy, University of Illinois, in the examination in accounting, theory and practice—part I, held on November 20, 1930. The suggested time allowance was one hour and thirty minutes:

Problem:

John M. Good, a merchant, has called you in to review his individual federal income tax return for the calendar year 1929, which was prepared by his bookkeeper. Aside from his business proprietorship, no books were kept.

Mr. Good is a citizen of the United States, maintaining his home in Chicago, Illinois. He is the father of two children in school, neither of whom contribute to their own support, one seventeen and the other twenty years of age.

Mr. Good's wife, Mary B. Good, died August 5, 1929. The administrator of her estate filed an individual federal income tax return for her covering the period up to and including the date of death. On the individual return he deducted $3,500 for personal exemption.

The bookkeeper has computed Mr. Good's tax as follows:

Particulars	Amount	
Income:		
Salary	$ 3,600.00	
Income from business	32,540.76	
Interest on deposits, bonds, etc.	12,172.48	
Rents and royalties	2,210.65	
Profits from sale of real estate, stocks, bonds, etc.	90,671.30	
Dividends on stock	5,720.52	
Income from fire insurance	1,778.40	
Total income		$148,694.11
Deductions:		
Interest paid	$ 2,648.73	
Taxes paid	3,017.21	
Bad debts	2,000.00	
Contributions	600.00	
Total deductions		8,265.94
Net income		$140,428.17
Computation of Tax		
Net Income		$140,428.17
Less:		
Dividends	$ 5,720.52	
Credit for dependents	800.00	
Personal exemption	3,500.00	10,020.52
Balance		$130,407.65

Normal tax—1½% on $4,000	$ 60.00
3 % on next $4,000	120.00
5 % on balance of $122,407.65	6,120.38
Surtax of 20% on $140,428.17	28,085.63
	$ 34,386.01
Less—Credit of 25% on earned income	422.00
Net tax	$ 33,964.01

You determine the following facts pertinent to the situation:

The salary of $3,600 was received from the D Corporation of which Mr. Good is an officer and director.

Income from a private business of Mr. Good's was computed as follows:

Particulars	Amount	
Total receipts		$781,426.38
Cost of merchandise sold (net)	$525,469.09	
Salaries	100,048.60	
Interest	6,211.14	
Taxes	895.32	
Bad debts	9,410.16	
Depreciation	14,786.92	
Rent, repairs and other expenses	92,064.39	748,885.62
Net profit		$ 32,540.76

Receipts included $150 from the sale of certain old fixtures which had originally cost $1,355, and, including the writeoff for 1929, had been depreciated by $1,005. The fixtures had not been removed from the asset account on the books of the business.

Other business expense included $728.48, the cost of repairs and upkeep of Mr. Good's automobile which was used for business purposes about 75% of the time.

Interest income included:

Particulars	Amount
On bank deposits	$ 769.48
From industrial bonds	5,388.00
From utility bonds	4,365.00
From Cook county highway bonds	1,650.00
	$ 12,172.48

All utility bonds owned by Mr. Good were tax-free-covenant issues on which a 2% tax had been paid at the source.

Rents were analyzed as follows:

Particulars	Amount received	Cost of asset	Depreciation	Repairs	Other expense	Net profit
Building A	$16,245.00	$192,645.00	$3,852.00	$3,621.16	$6,480.03	$2,290.91
Building B	6,000.00	78,240.00	1,564.80	1,195.20	3,320.26	*80.26*
						$2,210.65

The loss from Building B was attributed to the fact that Mr. Good occupied one of the six apartments in this building and that no income was realized from that apartment.

Profit from sale of real estate, stock, bonds, etc., was made up of the following items:

	Date acquired	Amount received	Depreciation allowable	Cost	Subsequent improvements	Net profit
Factory building	1928	$73,425.00	$12,865.80	$77,349.50	$7,480.00	$1,461.30
Stock rights (Master Corp.)	1929	210.00				210.00
Barrington Mach. stock	1925	110,500.00		21,500.00		89,000.00
						$90,671.30

The 20 stock rights (one right had been received for each 5 shares held) were sold at $10.50 each and had been acquired as the result of the ownership of 100 shares of Master Corporation stock purchased in 1922 by Mr. Good at $93 a share. The market price of the stock at the time the rights were issued was $138 a share and the market value of the rights was $7.50 each. The proper proportion of cost should be allocated to the rights.

Dividends were received from:

200	shares M and M Bank stock	$3,000.00
50	shares Belding Foundry stock	175.00
82⅚	shares Jordan Building Co. stock	538.52
60	shares Hemple & Co. stock	2,007.00
		$5,720.52

Hemple & Co. had discontinued business in 1928 and the dividend received in 1929 was the first liquidating dividend. The stock had been purchased at par ($100) in 1920.

Income from fire insurance was received as compensation for damage done to a garage which was entirely destroyed by fire. The garage was built by Mr. Good at the cost of $1,890 on which depreciation of $629.50 had been taken. After the fire the structure was rebuilt at a cost of $2,118.

Interest expense of $2,648.73 covered personal borrowings and included $378.15 of accrued interest. Taxes paid were as follows:

Personal property	$ 216.85
Real estate, including $1,047.60 of special new paving assessment.	2,800.36
	$3,017.21

Real estate tax bills of $4,932.60, including $1,998.57 of special paving assessments were due but unpaid.

The $2,000 bad debt consisted of money loaned to Mr. Good's brother in 1928. There was no note to support the loan. The brother's death in 1929 precluded the possibility of collecting; Mr. Good did not desire to press the claim because the net estate going to the widow was only $5,000. Contributions were made up as follows:

Church	$ 350.00
Y. M. C. A. building fund	50.00
Salvation Army Christmas chest	50.00
Democratic party campaign fund	150.00
Total	$ 600.00

Recompute Mr. Good's income tax liability, prepare the necessary supporting schedules, and explain any differences between your figures and those of the bookkeeper.

The applicable surtax rates in force during 1929 were:

Income	Rate applicable to last bracket of income	Total surtax
$ 14,000.00	1	$ 40.00
16,000.00	2	80.00
48,000.00	12	2,720.00
52,000.00	13	3,240.00
56,000.00	14	3,800.00
60,000.00	15	4,400.00
64,000.00	16	5,040.00
70,000.00	17	6,060.00
80,000.00	18	7,860.00
100,000.00	19	11,600.00
100,000.00+	20	

Solution:

No adjustment is necessary to account for the salary of $3,600 received from the D Corporation, of which Mr. Good is an officer and a director, as this amount was correctly included in the computation of Mr. Good's tax as prepared by the bookkeeper.

The income from the private business of Mr. Good should be adjusted (1) to exclude from the total receipts the amount ($150) received from the sale of the old fixtures, and (2) to include only 75% of the automobile expense of $728.48 incurred during the year in the operation of the automobile. These adjustments are explained below:

Total receipts from business:		
Per bookkeeper's computation		$781,426.38
Deduct—Amount received from sale of fixtures		150.00
Total receipts from business as adjusted		$781,276.38
Rents, repairs and other expenses:		
Per bookkeeper's computation		$ 92,064.39
Deduct—Automobile expenses applicable to personal use:		
Total expense of operating automobile	$ 728.48	
25% of $728.48 (the automobile is used for business purposes about 75% of the time)		182.12
Rents, repairs and other expenses as adjusted		$ 91,882.27

The loss on the sale of the fixtures is considered later with the gains or losses from sales of other assets subject to the capital net gain section of the regulations. After giving effect to the two above adjustments, the income from the private business of Mr. Good should be shown in schedule A of form 1040 as follows:

Total receipts from business		$781,276.38
Net cost of goods sold	$525,469.09	
Salaries	100,048.60	
Interest	6,211.14	
Taxes	895.32	
Bad debts	9,410.16	
Depreciation	14,786.92	
Rent, repairs and other expenses	91,882.27	
Total deductions		748,703.50
Net profit		$ 32,572.88

The interest income should be set forth separately in the return showing:

Interest on bank deposits, notes, etc. (except interest on tax-free covenant bonds):		
On bank deposits	$ 769.48	
From industrial bonds	5,388.00	
		$ 6,157.48
Interest on tax-free covenant bonds:		
From utility bonds (upon which a 2% tax had been paid at the source)		4,365.00
Interest on tax exempt bonds (should be shown in schedule E of the return):		
From Cook county highway bonds		1,650.00
Total interest income		$ 12,172.48

The income from rents should be corrected to account for the apartment in Building B (a six apartment building) occupied by Mr. Good, by apportioning the expenses; i. e., reducing the expenses shown by the bookkeeper by one-sixth. Schedule B of the return would appear as follows:

Particulars	Amount received	Cost of asset	Depreciation	Repairs	Other expenses	Net profit
Building A	$16,245.00	$192,645.00	$3,852.90	$3,621.16	$6,480.03	$2,290.91
Building B	6,000.00	78,240.00	1,304.00	996.00	2,766.88	933.12
Totals	$22,245.00	$270,885.00	$5,156.90	$4,617.16	$9,246.91	$3,224.03

Profit from sale of real estate, stocks, bonds, etc. (schedule C of the return), should include only the sale of the factory building acquired in 1928. The sale of the old fixtures, stock and stock rights should be shown in schedule D of the return which is considered immediately thereafter.

Kind of property	Date acquired	Amount received	Depreciation allowable	Cost	Subsequent improvements	Net profit
Factory building	1928	$73,425.00	$12,865.80	$77,349.50	$7,480.00	$1,461.30

Capital assets as defined in the regulations include "property held by the taxpayer for more than two years" and not held "primarily for sale in the course of his trade or business." The "capital net gain" is the taxable gain from sales of such property. While no date of acquisition of the "certain old fixtures" is given in the problem, it is apparent that, considering the ratio of the amount of the accumulated depreciation to the original cost of the asset, the fixtures were purchased prior to the year 1928. The stock investment in Barrington machine was acquired in 1925. A point not generally known, however, is that the sale of the stock rights received during the year 1929, is subject to the capital net gain provisions, for these rights are considered to have been "acquired" at the original date of acquisition of the stock (1922). Gain or loss on the sale of rights of Master Corporation, is determined by ascertaining the difference between the amount received and the cost or basis for the rights as prescribed by the regulations. The cost or basis for the stock should be divided between the stock and the rights in proportion to their relative market values at the time the rights are issued. Accordingly, the original cost of the investment of $9,300 should be divided between the 100 shares of stock with a market price of $13,800 and the rights with a market price of (20 x $7.50) $150.

	Market price	Ratio	Cost or "basis"
Stock	$13,800.00	98.92%	$9,200.00
Rights	150.00	1.08	100.00
Total	$13,950.00	100.00%	$9,300.00

The capital net gain section of the return (schedule D) should be set up to include the following:

Kind of property	Date acquired	Date sold	Amount realized	Depreciation	"Cost or value"	Net gain or loss
Fixtures	?	1929	$ 150.00	$1,005.00	$ 1,355.00	$ *200.00**
Barrington machine stock	1925	1929	110,500.00		21,500.00	89,000.00
Stock rights (Master Corporation	1922	1929	210.00		100.00	110.00
Totals			$110,860.00	$1,005.00	$22,955.00	$88,910.00

The first liquidating dividend received on the 60 shares of Hemple & Co. stock amounting to $2,007, is not subject to tax inasmuch as it represents an amount in partial liquidation, and presumably further liquidating dividends will be received. "The gain or loss to a shareholder from a distribution in liquidation is to be determined . . . by comparing the amount of the distribution with the cost or other basis of the stock." (Article 625 of regulation 74.) As the amount received ($2,007) is less than the price paid for the stock ($6,000), the dividend received is to be considered as a return of the cost, and is, therefore, not taxable. If this dividend were in complete liquidation, that is, if no further dividends were to be received, the excess of the cost of $6,000 over the amount received, $2,007, would be a deductible loss, subject to the capital net gain provisions of the regulations. The amount of dividends to be reported would show:

200	shares M and M Bank stock	$3,000.00
50	shares Belding foundry stock	175.00
82 5/6	shares Jordan building stock	538.52
	Total dividends received	$3,713.52

The item of income from fire insurance $1,778.40, is not subject to tax as it represents the amount received from the insurance companies as compensation for damage done to a garage which was entirely destroyed by fire, and immediately rebuilt at a cost of $2,118. Article 579 of regulations 74 states, "If the property so destroyed . . . is replaced in kind by similar property, . . . no gain or loss is recognized."

The interest expense should be corrected to eliminate the item of $378.15 of accrued interest, as Mr. Good's personal income is reported on the receipts and disbursements basis. The correct amount of interest is: (2,648.73 less $378.15) $2,270.58.

The real estate taxes accrued should not be reported as deductions for the same reason given above. The amounts paid on special new paving assessments are capital expenditures and are not deductible. The taxes to be deducted should appear (schedule F):

Personal property	$ 216.85
Real estate	1,752.76
Total taxes deductible	$1,969.61

No deduction may be made for the "bad debt" of $2,000, for had Mr. Good pressed his claim, as he might have done under a strictly debtor-creditor relationship, a partial, if not a complete recovery may have been made. The internal revenue department would, most likely, consider Mr. Good's motives in not pressing his claim as "charitable."

The "contribution" to the Democratic party campaign fund of $150 is not deductible as a contribution and should be excluded. The corrected list of contributions should show (schedule F):

Church	$ 350.00
Y. M. C. A. building fund	50.00
Salvation Army Christmas chest	50.00
Total contributions	$ 450.00

A recapitulation of the corrections explained above are set forth in the statement following:

Statement showing differences between bookkeeper's computations and corrected amounts

Income	Bookkeeper's computation	As corrected	Increase or *decrease*
Salaries—D Corporation...........	$ 3,600.00	$ 3,600.00	$
Income from business..............	32,540.76	32,572.88	32.12
Interest on deposits, bonds, etc.......	12,172.48	6,157.48	*6,015.00*
Interest on tax-free covenant bonds...		4,365.00	4,365.00
Rents and royalties................	2,210.65	3,224.03	1,013.38
Profit from sale of real estate.......	90,671.30	1,461.30	*89,210.00*
Dividends on stock................	5,720.52	3,713.52	*2,007.00*
Income from fire insurance.........	1,778.40		*1,778.40*
Total income	$148,694.11	$ 55,094.21	*$93,599.90*
Deductions			
Interest paid	$ 2,648.73	$ 2,270.58	*$378.15*
Taxes paid......................	3,017.21	1,969.61	*1,047.60*
Bad debts.......................	2,000.00		*2,000.00*
Contributions....................	600.00	450.00	*150.00*
Total deductions..............	$ 8,265.94	$ 4,690.19	*$ 3,575.75*
Net income..................	$140,428.17	$ 50,404.02	*$90,024.15*
Capital gain.....................		88,910.00	88,910.00
Total.......................	$140,428.17	$139,314.02	*$ 1,114.15*

The bookkeeper in his computation of income tax payable deducted $800 as credit for two dependents. Mr. Good was entitled to a credit of only $400 for the child under eighteen years of age. The personal exemption of $3,500 is correct, as the taxpayer was the "head of a family."

The rates of both normal and surtax used by the bookkeeper were incorrect. By a special act of congress, the normal tax rates for the year 1929 were reduced from 1½%, 3% and 5%, to ½%, 2% and 4%. Surtax should have been based upon the rates given in the problem, not upon a flat rate of 20%.

JOHN M. GOOD

Individual income-tax return for calendar year 1929

Income

Salary—D Corporation........................	$3,600.00	
Income from business or profession (schedule A)....	32,572.88	
Interest on bank deposits, notes, corporation bonds, etc.	6,157.48	
Interest on tax-free covenant bonds (2%)........	4,365.00	
Rents and royalties (schedule B)................	3,224.03	
Profit from sale of real estate (schedule C).........	1,461.30	
Dividends on stock of domestic corporations.......	3,713.52	
Total income............................		$55,094.21

Deductions

Interest paid	$2,270.58	
Taxes paid (schedule F)	1,969.61	
Contributions (schedule F)	450.00	
Total deductions		4,690.19
Net income		$50,404.02

Earned income credit

Earned income:			
Salary		$3,600.00	
20% of income from business (note)		6,514.58	$10,114.58
Less personal exemption and credit for dependents			3,900.00
Balance			$ 6,214.58
Amount taxable at ½%			4,000.00
Amount taxable at 2%			$ 2,214.58
Normal tax:			
½% of $4,000.00	20.00		
2% of $2,214.58	44.29	$ 64.29	
Surtax on . . . $10,115.48			
0% . . . 10,000.00			
1% of . . . $ 114.58		1.15	
Tax on earned net income			$ 65.44
Credit of 25% of tax ($65.44)			$ 16.36

NOTE.—Earned income is limited to amounts received as compensation for personal services actually rendered, and to an amount not in excess of 20% of the net profits accruing from a business in which both personal services and capital are "material income-producing factors."

Computation of tax

	Amount		Tax
Net income		$50,404.02	
Less:			
Dividends	$3,713.52		
Credit for dependents	400.00		
Personal exemption	3,500.00	7,613.52	
Balance		$42,790.50	

Amount taxable at ½%....	$4,000.00		$20.00
Balance..............	$38,790.50		
Amount taxable at 2%.....	4,000.00		80.00
Balance..............	$34,790.50		
Amount taxable at 4%.....	34,790.50		1,391.62
Surtax:	Net Income		
From table, on..........	$48,000.00	$2,720.00	
13% of...............	2,404.02	312.52	
Total...............	$50,404.02		3,032.52
Tax on net income........			$ 4,524.14
Tax on capital gain or loss 12½% of $88,910.......			11,113.75
Total...............			$15,637.89
Less credit of 25% of tax on earned income..................			16.36
Total tax...			$15,621.53
Less income tax paid at source (2% of $4,365)...............			87.30
Balance of tax....................................			$15,534.23

Correspondence

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Editor, THE JOURNAL OF ACCOUNTANCY:

SIR: In the preface to my recent book on *Fraud*, which was not published, being replaced by one prepared by yourself, I stated that all auditing and system texts and articles are apt to mention the matter treated in my volume. My effort was directed to the coördination and application of this material. It was therefore quite an impossibility to give credit in my bibliography to all authors who had made mention of these principles in their writings although I did my best to do so—but of necessity some have been overlooked, and have been called to my attention. Among these books is one by W. R. Thompson entitled *Accounting Systems;* another by F. W. Pixley entitled *Accountancy;* and another by F. E. Webner entitled *Factory Costs*.

Even with such inclusions, I think it only fair to other authors who may have mentioned some one or more principles of the subject matter to point out that a complete bibliography is a physical impossibility.

Yours truly,

G. BENNETT.

Syracuse, N. Y.,
November 14, 1931.

Accounting Questions

[The questions and answers which appear in this section of THE JOURNAL OF ACCOUNTANCY have been received from the bureau of information conducted by the American Institute of Accountants. The questions have been asked and answered by practising accountants and are published here for general information. The executive committee of the American Institute of Accountants, in authorizing the publication of this matter, distinctly disclaims any responsibility for the views expressed. The answers given by those who reply are purely personal opinions. They are not in any sense an expression of the Institute nor of any committee of the Institute, but they are of value because they indicate the opinions held by competent members of the profession. The fact that many differences of opinion are expressed indicates the personal nature of the answers. The questions and answers selected for publication are those believed to be of general interest.—EDITOR.]

METHOD OF RECORDING PROFIT AND LOSS ON EXCHANGE

Question: We would like to have your opinion as to the best method of recording profit and loss on exchange on the books of a business where the home office is shipping merchandise to various branches in foreign countries. The rate of exchange in these countries varies considerably from month to month.

If these branches enter the purchases from the home office at the current rate of exchange, their ratio of gross profit will show large variances from month to month, and it is extremely difficult for the home office to ascertain, at the end of the month, from the statements rendered by the branches, whether or not a reasonable percentage of gross profit has been earned. Would it not be more adequate to have the branches enter the purchases from the home office at a standard rate of exchange, and disregard the daily fluctuations? Of course, when remittances are made to the home office the profit or loss on exchange would then have to be taken up. Is there any objection to such procedure?

Answer No. 1: The method most generally followed by companies having foreign branches is to have the branches take up the merchandise shipped to them in dollars with corresponding dollar liabilities to the head office, and to have the branches convert these accounts into the local currencies at current rates. The periodical reports made by the branches in these cases are usually expressed in the local currency and are converted into dollars at the head office by using the average monthly, quarterly or annual rates, as the case may be, for the profit-and-loss accounts and the end-of-the-period quoted rates for current assets and liabilities, excepting inventories which the branch would report in dollars. Fixed assets should be converted at actual rates of exchange prevailing at the time when purchased. The difference arising from conversion on the above basis represents an exchange profit or loss which ultimately may or may not be realized, depending upon the exchange situation when the net assets are finally realized. Many concerns doing business abroad try to protect their profits on sales in foreign countries by hedging in foreign exchange, thus endeavoring to offset or evade exchange losses on realization of proceeds of sales.

Regardless of the method of accounting adopted, the foreign branch manager should be informed of the dollar costs to the foreign branch of the merchandise shipped to the foreign branch by the home office, so that he may be able to calculate the prices in the foreign currency at which he must sell his merchandise in order to yield a fair dollar profit. It is sometimes thought desirable (though it is not always done) to have the foreign branch report to the home office both the dollar and foreign currency figures relating to sales and cost of sales.

It should always be borne in mind that the method adopted by the foreign branch in keeping its accounts may affect the amount of the income and other taxes paid in the foreign country and for this reason the inventory of merchandise in the foreign country is sometimes not sold to the foreign branch, or to the foreign company acting as agents or representatives, but remains the property of the home company and is carried even in the foreign branch accounts in dollars only.

The adoption of a standard rate such as your correspondent suggests might make the bookkeeping a little easier, but if exchange with the countries in which he is dealing fluctuates from month to month as much as he suggests, the adoption of a standard rate might simply obscure the true results. We should be inclined to recommend a standard rate only if exchange were fairly stable.

Answer No. 2: We are of the opinion that the procedure is proper, and that it would meet the needs of the situation as outlined. In addition to keeping the accounts of the branches on the basis of a standard rate (ordinarily par) of exchange and making an adjustment for the difference whenever remittance is made by the home office, there would naturally be an adjustment made at the close of each year for the difference between the rate used in the accounts and the current rate of exchange with respect to the current assets and liabilities.

The adjustments made at the time of sending remittances together with the adjustment or the difference in exchange applicable to current assets and liabilities at the beginning and end of the year, respectively, would indicate the profit or loss on exchange for the year. However, it is to be borne in mind that this segregation between the trading and exchange elements in foreign commerce can never be entirely accurate when there are violent fluctuations of exchange, as such fluctuations, to some extent at least, affect the prices of goods in foreign markets (or in the American market if goods are imported from abroad). In other words, the selling price of the goods, expressed in the currency in which sold, would be higher or lower than the equivalent of the par of the originating currency plus a normal rate of profit, depending on whether the currency in which the sale is being made is at a discount or a premium compared with the originating currency.

Answer No. 3: In our opinion the method is not objectionable but, on the contrary, is quite desirable.

REAPPRAISAL VALUES OF QUARRY PROPERTY IN ACCOUNTS

Question: This involves transactions between Corporation A and Corporation B, both corporations being engaged in quarrying. Corporation A is a South Carolina corporation and Corporation B is a Georgia corporation. The plant of B corporation is in South Carolina.

Corporation A purchased the physical property of B at cost as shown by books of B, paying for those assets with capital stock, par value $100. The assets purchased were taken into the books of A at cost.

That was a closed transaction. Tax returns have been made for the period in which this transaction took place and have been approved by the government as no profit or loss on the transaction.

The quarry land operated originally by Corporation A is owned outright by the corporation. The plant purchased by Corporation A is situated on leased land and for this lease a royalty is paid, based on the tons quarried. The depletion on the original land of A corporation was fixed several years ago by the government at two cents per ton quarried. This was done after the government had made a survey of the property.

Three or four months after Corporation A acquired the properties of Corporation B, Corporation A passed a resolution requiring that all the property of the corporation be appraised and the appraisal value written into the books. This appraisal increased the value of the quarry land owned originally by A and the value of the machinery at both plants. Entries were placed on the books charging land and machinery with a figure which would cause those accounts to reflect the appraisal values. This was, of course, offset by a credit to "reserve for appreciation." Corporation A then issued stock, par value $100, for the amount of the reserve for appreciation and put an entry on the books charging reserve for appreciation, thereby closing that account, and crediting capital stock.

In this stock issue that portion representing the appreciation of original property was issued to original A stockholders and that portion representing appreciation on purchase property was issued to original B stockholders. It appears that the appreciated values were purchased by stock.

What I wish to know is how should the property values be shown in the balance-sheet and how should the following items be presented in the profit-and-loss statement:

Depletion on cost
Depletion on appreciation
Depreciation on cost
Depreciation on appreciation.

Answer No. 1: The case simmers down to these facts:

(1) That certain capital assets of a corporation have been appraised and the appraised values have been established on the records.

(2) That capital stock has been issued against the surplus arising from such appraisal.

It follows, therefore, that in stating these capital assets in the balance-sheet there must be appended to the description a reference to the fact that these assets are stated at values appraised by blank company as at blank date. Preferably, the details of surplus accounts presented in the balance-sheet should clearly indicate the amount of surplus which arose from appreciation and its elimination by the issuance of stock. In view of the fact that there remains no surplus from appreciation against which to charge depletion of appreciation, it follows, inevitably, that depletion must be charged against operation, based upon appraised values, which will comprise the two elements of depletion of cost and depletion of appreciation. If details of profit and loss are published, the profit-and-loss account should indicate that the depletion therein included is based upon appraised values. The same principles apply to the question of depreciation.

Answer No. 2: As to the statement of property values in the balance-sheet, it is our opinion that they should be shown as being at values, "as appraised by . . . as of (date)."

As to the treatment of depletion and depreciation in the profit-and-loss statement, we are of the opinion that no distinction should be made between depletion and depreciation on original cost and on appreciation value, in view of the fact that capital stock has been issued for the amount of the appreciation and that therefore all the depletion and depreciation must be charged against operations.

PURCHASE DISCOUNTS IN DEPARTMENT STORES

Question: Are purchase discounts treated by department stores as financial income or are they credited to the departments?

If credited to departments, are they treated as a reduction of cost in computing mark-up?

Answer: Purchase discounts are not handled as financial income by department stores. They are treated instead as an addition to the gross profit. The gross profit is stated usually with and without discounts. The mark-up, however, is based on the gross purchase price and the gross profit determined in that manner in the departmental inventory records. The discounts are then credited to the departments in supplementary calculations.

While this method is not entirely uniform it is used by practically all department stores with which we are acquainted.

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